### Section 1: Proposal Descriptors

**Proposal Title:** Department Management and Administration

**Proposal Number:** 130.04NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Enhancing

Previous Proposal: 130.04NA, 130.19N Budget Status: Recommended

Attachments: 0 Primary Staff: Dana M. Adell

### Section 2: Executive Summary

This proposal provides funding for strategic leadership on transportation issues within the organization and region, manages and/or provides oversight over all lines of department business, and provides general administrative and financial support to the Department. These resources benefit all functions within the Department logically lending themselves to a single proposal for management and administration.

Budget Process Outcome: Enhanced elements, Temp Staff and/or Professional Services for unplanned initiatives, APWA Reaccreditation, Dept. Strategic Plan, etc. not recommended for funding.

### Section 3: Responsiveness to Request For Results

Department Management and Administration provides strategic leadership, management, oversight and general support for the Transportation Department.

Department Management consists of a Director (1.0), the Assistant Director for Traffic Management (1.0), the Assistant Director for Planning (1.0) and the Implementation Planning Manager (0.50).

Department Administration consists of the Director's Assistant/Administrative Services Supervisor (1.0), the TR Policy Advisor (1.0), Fiscal Manager (1.0), two Senior Budget Analysts (2.0), an Administrative Assistant (.50), two part-time Administrative Assistants (0.65 and 0.56), and a vacant Administrative Assistant LTE (1.0).

#### Resources funded through this proposal will:

- Manage the department, oversee operations and implement programs/projects to carry out the City vision and Council/City Manager direction.
- Assure interdepartmental collaboration and coordination to achieve unified results.
- Lead the budget development process and subsequent monitoring/reporting activities.
- Align depart. activities with city-wide initiatives such as One City, Environmental Stewardship, Organizational Development, etc..
- Manage the department-wide reaccreditation through APWA.
- Develop and maintain external partnerships with businesses, other agencies, and political bodies.
- Provide administrative and financial staff support for department management and department overall. Engage with other agencies to ensure that Bellevue's regional transportation interests are realized SCALABILITY OPTIONS: Scaling the Administrative Support function of this proposal could result in requiring higher paid technical and professional staff to perform more administrative duties impacting both efficiency and effectiveness. Scaling the professional services budget could result in foregoing APWA reaccreditation in 2015.

#### HOW DOES THIS PROPOSAL ADDRESS THE CITYWIDE PURCHASING STRATEGIES?

Provide for gains in efficiency and/or cost savings and ensure that services are &right sized&.

• As part of the Budget One process, Department Management, including all department managers, conducted a thorough assessment of programs and services to ensure the most efficient, cost effective and &right sized&, i.e. appropriate service level, are being proposed. We will also assess the organizational structure of the department and &right size& this structure upon completion of the Budget One process particularly focusing on

Capital Investment Program delivery.

Leverage collaboration or partnerships with other departments and/or external organizations.

- Partnerships with other departments in city-wide planning efforts include the Downtown Transportation Plan Update, Downtown Livability Initiative and the Eastgate/I-90 Corridor Study These multi-year efforts have lead/are leading to innovative and future-focused comprehensive plan updates for major areas of the City.
- Partnerships with regional agencies (WSDOT, ST, King County/METRO) and the elected officials responsible for allocating resources to these agencies and projects have led to investments in transportation improvements in Bellevue including: Access Downtown (\$139M), NE 10th Street Extension (\$63M), I-405 South Bellevue Widening, I-405 Braid project (\$275M), East Link (\$1.4B), Rapid Ride B Line, etc..

Eliminate low value-added activities and Consider short and long-term financial impacts:

• In every budget cycle the department assesses every program for priority and level of service and bases budget requests on that assessment.

Consider best practices:

• Responsible for department accreditation through the American Public Works Association (APWA). This exhaustive best practices effort lead to the department receiving accreditation in November of 2007 and reaccreditation in November 2011 and 2013 by proving to a review panel the department was in full compliance with all 313 best practices as established by APWA.

Promote Environmental Stewardship:

• Responsible for assuring staff are trained in and employ practices to assure environmental stewardship and that sustainable construction practices are utilized.

Ensure sound management of resources and business practices:

• The Transportation Department publishes, and presents to Council, a Transportation CIP Quarterly Report.

# HOW DOES THIS PROPOSAL ADDRESS THE IMPROVED MOBILITY FACTORS/SUBFACTORS? [EXISTING & FUTURE INFRASTRUCTURE AND TRAVEL OPTIONS]

• Planning to accommodate future demand:

Department management staff coordinate on an on-going basis with senior management staff in the Planning & Community Development (PCD) Department to ensure that land use and transportation planning efforts in the city are fully integrated, i.e. Downtown Transportation Plan and Downtown Livability Initiative, Eastgate/I-90 Corridor Study, etc..

• Leverage partnerships and maximize opportunities with other agencies and Travel Options: Ensure that the full range of travel options are incorporated in local and regional planning: Department senior management staff meet on an on-going basis with senior management staff at other state and regional transportation agencies (such as WSDOT, Sound Transit, and King County Metro) to ensure that the City's interests are advanced and considered in the planning, design, and operations of state and regional transportation facilities and programs.

#### [TRAFFIC FLOW]

• Include preparation for severe event response. Department senior staff serve on the city-wide Emergency Operations Board, staff the Transportation Desk in the Emergency Operations Center, and manage the Transportation Command Center during emergencies. Management staff also participate in emergency management planning, training and evaluation.

[BUILT ENVIRONMENT]

• Promote and support the economic vitality of the City. Endorsement by the Director of the National Association of City Transportation Officials guidebook provides new tools to better integrate transportation and the built environment based on national best practices.

#### HOW DOES THIS PROPOSAL ADDRESS THE OTHER OUTCOMES?

RESPONSIVE GOVERNMENT - Department management staff promotes and ensure that departmental practices and projects strive to realize community vision and values, are accessible by all, and ensure department's public

outreach efforts strive to connect with our diverse community. The Transportation Department has achieved and sustained American Public Works Association accreditation.

SAFE COMMUNITY - Transportation has established SOPs and procedures that document and address issues to assure a safe transportation system, have a plan, and practice that plan, for future emergency events, as well as have SOPs to address prompt recovery/restoration of services in an emergency.

HEALTHY AND SUSTAINABLE ENVIRONMENT - Management staff plan for and promote multi-modal transportation alternatives through efforts like the Transit Master Plan Update that will reduce greenhouse gasses in the environment and ensure surface water quality by meeting current requirements for detention and water quality treatment, including advocating for innovative techniques such as permeable pavements, rain gardens, etc.

QUALITY NEIGHBORHOODS - Management staff ensure forward thinking and context-sensitive designs of projects to assure they meet the neighborhood character (e.g., West Lake Sammamish parkway project); promote connectivity between neighborhoods for safe walking/biking environments; preserve or enhance existing infrastructure; and provide mobility to disabled system users by assuring transportation investments meet ADA requirements.

INNOVATIVE, VIBRANT & CARING COMMUNITY - Management staff assure that the community is involved and has a say in all phases of a project from planning into design (via public Open House meetings, social media and other forums and means).

ECONOMIC GROWTH & COMPETITIVENESS - Transportation staff work with outside agencies (locally and regionally), businesses, and residents to mutually develop long-range planning efforts and assure that infrastructure progresses in support of these efforts. We collaboratively support a wide range of infrastructure investments and system uses, e.g. Bellevue Arts & Craft Fair, that enhances the City and promote economic growth.

# Section 4: Performance Measures and Targets

<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	2014 Target	2015 Target	2016 Target
130.0001	Average score on department employee survey indicating upper management effectively communicates the reasons behind key decisions (scale of 5)	3.19	3.19	3.22	N/A	3.75	3.75	3.75
130.0002	Percentage of budget proposals achieving defined performance measures	N/A	N/A	N/A	N/A	100%	100%	100%
130.0003	Percentage of residents that agree or strongly agree that improving transportation is the biggest problem in the city	62%	61%	61%	N/A	50%	50%	50%
130.0012	Percent of regional mobility principles advanced through regional project staff activities	N/A	N/A	N/A	N/A	60%	60%	60%
130.0013	Percent of regional partners and design/build teams who rate the value added by regional project staff as meets or exceeds expectations	N/A	N/A	N/A	N/A	80%	80%	80%

# Section 5: Requested Funding

### 5A: Are any new costs other than inflation included in this proposal?

Not recommended for funding: Ongoing annual \$25,000 of funding for temporary staff and/or professional services for managing department-wide/organizational functions and unplanned initiatives (e.g., organizational development, ADA compliance and reporting, etc.)

# 5B: Are one-time expenditures included in this proposal?

Not recommended for funding: One-time \$50,000 (2015) for temporary staff and/or professional services for managing the APWA reaccreditation process. One-time \$40,000 (2015) of funding for professional services for developing the department's strategic plan.

# 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding

# 5D: Are changes to the existing service levels included in this proposal?

The proposed funding will provide Transportation with the resources to more efficiently and effectively manage department-wide/organizational functions and unplanned initiatives.

FTE/LTE	2015	2016
FTE	10.21	10.21
LTE	1.00	1.00
<b>Total Count</b>	11.21	11.21

<b>Operating</b>	<u>2015</u>	<u>2016</u>	
Expenditures	79,259	77,926	
Personnel	1,565,526	1,573,395	
<b>Supporting Revenue</b>	187,125	193,437	
Rev-Exp Balance	-1,457,660	-1,457,884	

# **Section 1: Proposal Descriptors**

**Proposal Title:** Transportation Drainage Billing

**Proposal Number:** 130.06NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: "130.06NB~~060.2 Budget Status: Recommended

**Attachments:** 0 **Primary Staff:** Judy Johnson, 4891

### Section 2: Executive Summary

This proposal is for funds for the Transportation Department to pay for storm drainage from Bellevue's roadways to the City's Stormwater Utility. This system manages runoff from impervious surfaces to prevent flooding, and to preserve existing streams and wetlands, keeping them free from pollutants. Transportation owns over 120,000,000 sq ft of impervious streets. Transportation is billed for 26.5% of the surface as lightly developed (medians, plantings, etc). The other 73.5% is billed as heavily developed. Heavily developed properties have much greater runoff and are charged at a higher rate. These calculations have been determined to take credit for detention systems into account.

### Section 3: Responsiveness to Request For Results

As property owners, the City must pay the same types of fees that homeowners and businesses pay, measured in the same way. Storm and Surface Water charges serve to maintain and improve the entire City's stormwater system. These charges are based on the size of the property and the percentage of impervious surface. Impervious surfaces are mainly constructed surfaces such as sidewalks and roads which are covered by materials which do not allow water to pass through; such as asphalt, concrete, brick and stone. These materials seal surfaces, repel water and prevent it from infiltrating soils. The higher the percentage of impervious surface, the higher the classification will be for billing purposes. The range of classifications runs from &wetlands& to &very heavily developed.& Transportation owns over 120,000,000 sq ft of impervious street surfaces and walkways.

The City of Bellevue currently provides a highly functional drainage system that serves all customers within the City. This system is critical to the prevention of flooding, and erosion; and traps debris, oils, silts, and other contaminants that would otherwise end up in the City's lakes and streams. Storm drainage is able to remove these contaminants and dispose of them properly.

#### **SCALABILITY**

Not paying the bill is not an option, this proposal is not scalable.

### IMPROVED MOBILITY – (Flood Prevention)

Bellevue's drainage system is composed of streams, lakes, wetlands, flood detention sites, pipes and ditches and has been designed to hold and carry water during storms to prevent flooding. This improves mobility because a properly maintained drainage system reduces roadway flooding and the resulting impacts on mobility.

Bellevue's Citywide Purchasing Strategies, community values and IMPROVED MOBILITY purchasing factors include building, maintaining and improving the Transportation system in such a way that it provides safe and reliable connections for people to get where they want to go — when and how they want to get there. In the EXISTING AND FUTURE INFRASTRUCTURE factor, it states "PROJECTS AND PROGRAMS THAT ENHANCE THE RELIABILITY AND MAXIMIZE THE FUNCTIONALITY OF TRANSPORTATION INFRASTRUCTURE NOT ONLY ENSURE THAT TAXPAYERS GET THE MAXIMUM VALUE FOR THESE INVESTMENTS, BUT ARE ALSO KEY TO IMPROVING

MOBILITY. Each and every Transportation project that is built includes considerations for storm drainage components that meet the engineering needs for system passability and flood control. Roadway, bicycle lane or walkway pavements that do not drain properly are hazards to the system users because they cause cars to hydroplane and cause bicyclists or pedestrians to edge out into traffic to avoid puddles. Further, pavements that do not drain properly fail sooner due to the eventual penetration of the water into the ground below, weakening the pavement. This trapped water becomes even more destructive in the winter when it freezes and expands, forcing pavements to buckle. Preventing this damage is beneficial to the SAFETY and MAINTENANCE components of the TRAFFIC FLOW factor by CLEARING BARRIERS AND MINIMIZING DISRUPTIONS to traffic. The BUILT ENVIRONMENT factor is enhanced as preservation of the existing pavement saves resources for other projects and enhances the TRAVEL OPTIONS as well as the convenience and safety of the system.

The payment of the Storm Drainage bill is not only a legal obligation, but it funds the maintenance of the Transportation drainage system; which is environmentally necessary, critical to the everyday function of the transportation network, and beneficial to the City's recovery after ice and snow events and flood events.

HEALTHY AND SUSTAINABLE ENVIRONMENT (RFR) factors and subfactors enhanced by this proposal:

AIR AND WATER factors - POLLUTION PREVENTION AND REDUCTION, SURFACE AND STORM WATER MANAGEMENT

- EDUCATION To increase awareness about pollution in waterways, Bellevue is part of a regional campaign called &Puget Sound Starts Here, & made up of more than 300 Puget Sound organizations that support the message that the Sound's pollution problems start in our own backyards.
- REDUCED POLLUTANTS To protect water quality, Bellevue manages stormwater runoff in a number of ways. The city follows &best management& practices and operates under a National Pollutant Discharge Elimination System Phase II Municipal Stormwater Permit issued by the state Department of Ecology in January 2007. This permit is a requirement of the Federal Clean Water Act.

NATURAL ENVIRONMENT, (LAKES, STREAMS, AND WETLANDS, WILDLIFE HABITAT)

- As water from rainfall flows over rooftops, streets and yards, it picks up and carries pollutants such as fertilizers, soap, oil, dirt, metals and solvents. This pollution flows directly into Bellevue's storm drains and ends up harming streams, lakes and wetlands. Proper maintenance of the Storm Drainage system keeps our waterways free of pollution.
- Streams, lakes and wetlands are critical areas protected from development, and constitute a natural part of Bellevue's drainage system. They are also home to salmon and many other types of fish and wildlife.
- People in Bellevue enjoy the city's streams, lakes and wetlands for their beauty and for recreation.
- Flooding can cause stream bank erosion, destroy salmon eggs and cause property damage.

# SAFE COMMUNITY – (Flood Prevention)

Bellevue's drainage system is composed of streams, lakes, wetlands, flood detention sites, pipes and ditches and has been designed to hold and carry water during storms to prevent flooding. This improves safety because it reduces the possibility of flooding in businesses and residences.

RESPONSIVE GOVERNMENT: Stewards of the Public Trust (Minimizing Risk and Liability) – Funds programs that ensure that the City complies with contract and regulatory requirements (National Pollutant Discharge Elimination System and Endangered Species Act). This also reduces the likelihood of claims due to roadway runoff that has overflowed the roadway and entered private properties.

ECONOMIC GROWTH AND COMPETITIVENESS: Land, Infrastructure and Planning - A robust and strategic drainage infrastructure forms the foundation for the City's economic competitiveness and advances the standard of living in the community.

# Section 4: Performance Measures and Targets

No Performance Measures to be displayed.

# Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

N/A

5B: Are one-time expenditures included in this proposal?

N/A

5C: Are dedicated revenues included in this proposal?

N/A

5D: Are changes to the existing service levels included in this proposal?

N/A

5E:	Bud	get Summarv	

FTE/LTE	<u>2015</u>	2016
FTE	0.00	0.00
LTE	0.00	0.00
<b>Total Count</b>	0.00	0.00

<b>Operating</b>	<u>2015</u>	<u>2016</u>
Expenditures	3,672,651	3,823,230
Personnel	0	0
Supporting Revenue	0	0
Rev-Exp Balance	-3,672,651	-3,823,230

### Section 1: Proposal Descriptors

**Proposal Title:** East Link Overall

**Proposal Number:** 130.07DA **Outcome:** Improved Mobility

Parent Proposal: 130.56PA Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Enhancing

Previous Proposal: 130.07DA Budget Status: Recommended

Attachments: Primary Staff: Maher Welaye

### Section 2: Executive Summary

This proposal enables continued City involvement in the East Link light rail project. East Link is a voter approved \$2.8 billion extension of light rail that will connect Bellevue with Overlake, Mercer Island and Seattle. It will support the continued growth and development of the Downtown and the redevelopment of the Wilburton and Bel-Red areas. In 2011 the City and Sound Transit (ST) entered into a Memorandum of Understanding (MOU) that commits the City to contribute up to \$160 million to the project. It created a Collaborative Design Process to facilitate the resolution of issues and advance the project. This project is a major focus for the City Council and broader community. During 2015-16 the focus will be on advancing final design and initiating construction activities.

#### Section 3: Responsiveness to Request For Results

This proposal will provide the staff support required to advance the project and support City Council deliberations and decisions on East Link issues. A multi-department effort will be used for this proposal per the &One City& initiative. We will continue a close collaboration between city staff to address/solve East Link design and construction issues in lieu of heavy reliance on specialized consultants or on ST. It continues a partnership between the City and ST, for close city involvement in the project and access to ST analyses.

The City and ST executed an Umbrella Memorandum of Understanding in November 2011 (MOU). In January 2012 both parties endorsed a Collaborative Design Process (CDP) that guides cooperative efforts leading up to completion of the 60% design plans and ST base-lining the project cost estimate in late 2014/early 2015.

In 2015-16 resources will be required to complete final design and begin construction. Staff oriented towards construction inspection will be added as needed and are identified in a Development Services proposal. Ongoing work tasks include:

- Design/ Value Engineering: Staff, ST, and its consultants will advance final design including coordination of requirements and review of design to ensure community preferences are reflected. On-going value engineering efforts are anticipated to ensure costs are minimized and quality maximized.
- MOU Accounting and Cost Estimating: Bellevue committed up to \$160 million towards the project making it vital that cost estimates are understood and mutually agreeable. Staff will monitor design and estimates, and manage consultant resources utilized for cost reviews. Efforts will be designed to satisfy the financial accounting tasks specified in the MOU and inform Council's decision making.
- Utility Coordination: ST will relocate utilities to accommodate the new light rail. Bellevue will be getting new facilities and as agreed to in the MOU between the City and ST, the City's is to pay the depreciated value of the relocated utilities. Coordination, design, and construction activities will continue during the biennium. Utilities R&R funds of \$7.7 million will fund the depreciated value of relocated water, sewer and storm utility facilities by ST as part of the planned light rail improvements.
- Public Outreach: Outreach, currently focused on collaboration with ST on design issues of interest to the public will begin to transition to mitigation measures and construction phases in this biennium.
- Station Area Planning (SAP) is a priority in the Comprehensive Plan and was a key action identified in the Bellevue Light Rail Best Practices report to occur once station locations were settled and prior to completion of

final design. This biennium will wrap-up the SAP program begun and/or completed around four of the six light rail stations up to this time. The East Main SAP, which is focused on redevelopment potential east of 112th Avenue SE, neighborhood access and other transportation issues, will be completed in 2015. The major SAP effort in terms of staff resources, public engagement and consultant assistance will be focused on the Hospital/Wilburton area and include a wide range of issues (e.g. land use, redevelopment potential especially for TOD, station access, transportation, and environment) centered on advancing the City's land use and mobility goals to ensure that stations appropriately fit their local context and incorporate best practices. The final phase of this program will be a review of the planning work previous conducted on the 120th and 130th station areas to identify gaps or updates needed to bring those plans to the same level as the station area plans. This planning effort will also help leverage economic development opportunities, especially around the Hospital District. Interaction with the surrounding community will be critical to ensure that light rail stations are a good "fit" with the surrounding community.

The resource requirements for this proposal total 9 full-time equivalent employees plus 1 LTE:
-8 positions in Transportation (Engineering Mgr.]Reg. Trans PM] ]Sr. Project Mgr. ]Cap. Project Mgr.(0.5)]PIO ]
Engineer (LTE) ]Trans. Sr. Planner ]Sr. Eng. –Signals ] Assoc. Planner – Neighborhood Traffic (0.5) - inspection services are included in an enhanced DS proposal. Need for an Office Engineer position will evaluated at mid-bi.

- -2.0 FTE Sr. Planners Planning and Community Development for Station Area Planning;
- -The CMO, CAO, Utilities Department, and others will participate but have accounted for their staffing in other proposals.

This proposal is supported by a parent CIP proposal, &East Link Analysis and Development (130.56PA).

SCALABILITY: Though not recommended, this proposal could be scaled to defer up to \$150,000 of the Station Area Planning budget allocation and related work program to the 2017-2018 budget. Deferring this work would be contrary to direction in the Comprehensive Plan and Light Rail Best Practices Report for Station Area Planning and it would compromise the City's ability to advance critical planning and implementation efforts in station areas, especially redevelopment opportunities for the Hospital/Wilburton station.

This proposal primarily responds to the IMPROVED MOBILITY outcome, and addresses the [EXISTING AND FUTURE INFRASTRUCTURE], including all of its purchasing strategies: "plan to accommodate future demand; maximize the benefits of investments made by regional and state agencies; include safe infrastructure design for all users; leverage partnerships and maximize opportunities with other agencies; provide multi-modal infrastructure; provide convenient connections between destinations; promote and support economic development." Numerous transportation plans have concluded that the region must turn to HCT investments for key corridors within the Puget Sound region. City involvement will ensure that growth in Downtown and the Bel-Red corridor is supported by light rail, and that stations are appropriately sited and designed.

This proposal also relates to the [BUILT ENVIRONMENT] and [TRAVEL OPTIONS] strategies by advancing the voter approved project through final design and moving it towards construction. Light rail will ensure that the project is designed to fit with neighborhood character and that stations are located near or at existing transportation facilities such as the downtown Bellevue Transit Center and S. Bellevue Park and Ride. This will ensure that light rail is convenient and readily accessible. At the same time, the system is being designed to protect neighborhoods from negative traffic impacts through avoidance and mitigation.

Joint work between the City and ST will be coordinated with park planning in south Bellevue and downtown; transportation planning and project development projects are being coordinated, SAP overlaps with the

Downtown Livability Initiative, Downtown Plan, Bel-Red Plan, and Wilburton area planning. Additionally, the City will acquire properties for the East Link project (per the MOU) that are also needed for future facilities.

# Section 4: Performance Measures and Targets

Code	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	2014 Target	<u>2015</u> <u>Target</u>	<u>2016</u> <u>Target</u>
130.0013	Percent of regional partners and design/build teams who rate the value added by regional project staff as meets or exceeds expectations	N/A	N/A	N/A	N/A	80%	80%	80%
130.0123	Percent of residents who feel that the city is doing a good job of planning for growth in ways that will add value to their quality of life	82%	75%	83%	N/A	85%	85%	85%

# Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

This proposal includes .50 new FTE (Associate Planner \$46,000/year)

5B: Are one-time expenditures included in this proposal?

NA

5C: Are dedicated revenues included in this proposal?

Supported by CIP Revenue

5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	9.00	9.00
LTE	1.00	1.00
<b>Total Count</b>	10.00	10.00

<b>Operating</b>	<u>2015</u>	<u>2016</u>
Expenditures	110,263	108,933
Personnel	1,380,432	1,381,710
Supporting Revenue	1,486,689	1,485,759
Rev-Exp Balance	-4.006	-4.884

### Section 1: Proposal Descriptors

**Proposal Title:** Intelligent Transportation Systems (ITS)

**Proposal Number:** 130.11NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: 130.11PA Budget Status: Recommended

**Attachments:** 0 **Primary Staff:** Mark Poch

### Section 2: Executive Summary

This proposal provides maintenance and operations for existing Intelligent Transportation Systems (ITS) programs and devices. It also provides the construction, operations, and maintenance resources necessary to continue the replacement of the City's old signal system with the state of the art SCATS (Sydney Coordinated Adaptive Traffic System), and implement additional ITS projects from the city's ITS Master Plan. ITS is Bellevue's program to add intelligence and communication technology to transportation infrastructure to provide a higher level of mobility and information to all roadway users. ITS solutions such as SCATS adaptive signals provide gains in system wide efficiency without widening roads, and thus have a very high benefit to cost ratio.

# Section 3: Responsiveness to Request For Results

What the city is buying: This proposal provides maintenance and operations for existing ITS programs and devices, as well as the staff resources necessary to continue the replacement of the City's old signal system with the state of the art SCATS traffic adaptive system, and implement additional ITS projects from the City's ITS Master Plan. ITS is Bellevue's program to add intelligence and communication technology to transportation infrastructure to provide a higher level of mobility and information to all roadway users. Benefits include increased efficiency, less motorist and pedestrian delay, better trip making decisions, reduced vehicle wear and fuel consumption, and increased safety and security. ITS solutions such as SCATS adaptive signals provide huge gains in system wide efficiency without widening roads, and thus have a very high benefit to cost ratio.

What the Transportation Department is trying to accomplish with ITS: Employing ITS in Bellevue is desirable to improve the efficiency and safety of the transportation network, and to stay well ahead of the curve on the inevitable technology changes that are constantly affecting the transportation industry. Bellevue is facing unique mobility challenges as it transitions from suburban automobile centric to urban and multi-modal. This challenge may be best typified by the Downtown, where traffic growth is projected to far exceed available roadway space. ITS is a natural response to this mobility challenge, as more efficient traffic signals, more motorist information, transit signal priority, and improved pedestrian and bicycle conditions are ways to provide countermeasures in areas where demand exceeds capacity. The East Link project also typifies the challenge, as trains will be running down the middle of roadways and straight through signalized intersections at grade. The ITS program gives us the technology and staff expertise to engineer how all these systems will integrate together into seamless roadway operations. Opening day for East Link is still a decade away, but the design is happening now and Bellevue ITS is at the table. The following table shows existing and possible future ITS system supported by this proposal, along with their primary benefit:

ITS system – Status - Primary Benefit
SCATS Traffic Adaptive Signal System - Existing & Active Upgrade - Systematic delay reduction
Traffic Management Center (TMC) – Existing - Active roadway management
Traffic Cameras - Existing & Active Upgrade - Traveler & staff info

Real Time Traffic Map - Existing & Active Upgrade - Traveler & staff info

Fiber/Broadband Communications - Existing & Active Upgrade - Systems operations

Transit Signal Priority - Existing & Future - Bus mobility Driver Speed Feedback Signs – Existing - Speed reduction/safety Real Time Sched. Signs at Bus Stops – Existing - Traveler info Variable Signs and Channelization - Existing & Future - Congestion reduction Variable Speed Limits - Existing & Future - School and arterial safety Automated Traffic Counts - Existing & Future - Traffic data & staff safety Bike Detection at Signals - Existing and Expansion - Multi-modal mobility Automated Enforcement – Existing and Expansion – Safety Highway Advisory Radio - Past and Future - Traveler info Center to Center Integration - Active Upgrade - Congestion reduction Light Rail Integration with Traffic Signals – Future - Multi-modal mobility Dynamic Message Signs – Future - Traveler info Parking Management – Future - Congestion reduction Street Light Management System - Future - Energy savings/maintenance Automated Commuter Alerts – Future - Traveler info Roadway Weather Stations - Future - Safety and maintenance Web Video of Traffic Cams - Future - Traveler info Flood Monitoring at Roadways - Future - Emergency management VoIP at Traffic Signals - Future - Emergency management Arterial Travel Times on Website – Future - Traveler info

How do the services relate to the purchasing strategies for Improved Mobility:

EXISTING & FUTURE INFRASTRUCTURE – This proposal provides for the maintenance, planning, and design of ITS technologies including traffic computer system, traffic cameras, Real Time traffic map, and broadband communications, as well as regional partnerships with WSDOT, King Co. and Redmond. By providing SCATS traffic adaptive signals to WSDOT and Redmond, and broadband communications, transit signal priority, and real time bus arrival/departure signs to King County Metro, this proposal provides regional partnerships. TRAVEL OPTIONS – Transit signal priority, transit signs, and the ability to integrate Light Rail at grade operations into Bellevue signal operations promote multi-modal transportation.

TRAFFIC FLOW – Through the maintenance of existing and expansion to new ITS projects and SCATS, this proposal enhances the efficiency of the system and increases road capacity and decreases travel time. The Traffic Management Center (TMC) and traffic cameras enable the City to provide better emergency responses and safety.

CITYWIDE PURCHASING STRATEGIES – This proposal provides for gains in efficiency, (systematic ITS improvements to the transportation system), leverages collaboration and partnerships (WSDOT, Metro, Redmond) and is innovative (only city in Washington with traffic adaptive signal system, and 1st WA city with municipal Real Time Traffic Map).

What indicators will measure the results of ITS: Measures in this proposal include an estimate of the delay reduction value to the public from the SCATS traffic adaptive signal system as well as the flashing yellow arrow left turns, progress toward the completion of SCATS, the number of traffic cameras in the system, and the number of corridors that have travel time shown to the public on the city's website. Other measures tracked but not included in the proposal include total staff, total SCATS signals, signals with Ethernet (high speed) communications, and other measures related to travel times available to the public on the website. Other benefits include staying ahead of technology changes in the transportation industry, and staff expertise to be able to staff technology challenges such as light rail operations at signalized intersections. Finally, the benefit to cost associated with SCATS is impressive. The one time project cost of SCATS is approximately \$5 million. The annual benefit from better signal operations and the flashing yellow arrow left turns is estimated to be \$8,000,000 million ANNUALLY and growing. For comparison, it recently cost \$4 million to widen NE 8th St from

108th to 106th by one lane for two blocks, and the estimated benefit of that widening is \$200,000 per year. This proposal will help keep "maintaining traffic signals" as a top 5 performing service in Bellevue's comprehensive Operating Budget Survey (Rank = 5 out of 38 in 2012).

Why is the service level appropriate for the ITS proposal: Bellevue already has an impressive inventory of ITS solutions that need the ongoing management and maintenance contained in this proposal. Bellevue continues to look to ITS for additional solutions, and this proposal not only helps implement those solutions (such as SCATS traffic adaptive signals), but will also assume the maintenance as well. The proposal contains an ITS Manager, an electronics technician, and a two person electrical crew, which is the appropriate staff level to manage and maintain the existing ITS system. The proposal can reasonably manage the system expansion scheduled for '15-'16, including the final build out of SCATS and other new projects such as school speed zone signs, radar feedback signs, and emergency vehicle pre-emption management expansion. This is accomplished through the reallocation of work at the signal shop. For instance, the two person electrical crew and most of the electronics technician is dedicated to the SCATS expansion and other projects such as school speed zone signs are handled by other non-ITS dedicated electricians. This allocation of work is sustainable for the next two year budget cycle, and the major construction associated with the SCATS project is anticipated to be completed by the end of 2015.

# **Section 4: Performance Measures and Targets**

Code 130.0007	Performance Measure SCATS flashing yellow arrow delay reduction value	2010 Actual \$456,000.00	2011 Actual \$770,000.00	2012 Actual \$1,500,000.	2013 Actual \$2,250,000.	2014 Target \$3,000,000.	2015 Target \$3,250,000.	2016 Target \$3,500,000.
130.0008	SCATS adaptive signal system completion	17%	26%	57%	58%	82%	100%	100%
130.0081	Traffic cameras (network/digital)	9	11	18	51	57	60	63
130.0154	SCATS total delay reduction value estimate	\$1,125,000. 00	\$1,925,000. 00	\$3,750,000. 00	\$5,625,000	\$7,500,000	\$8,750,000	\$10,000,000
130.0159	Corridors with travel time info available on city website	0	0	0	0	0	0	1

# Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

None

5B: Are one-time expenditures included in this proposal?

None

5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding.

5D: Are changes to the existing service levels included in this proposal?

None

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	4.00	4.00
LTE	0.00	0.00
<b>Total Count</b>	4.00	4.00

<b>Operating</b>	<u>2015</u>	<u>2016</u>
Expenditures	78,314	79,856
Personnel	474,585	492,614
Supporting Revenue	37,766	39,177
Rev-Exp Balance	-515 133	-533 293

### Section 1: Proposal Descriptors

**Proposal Title:** Long Range Transportation Planning

**Proposal Number:** 130.13NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Enhancing

**Previous Proposal:** 130.13NA **Budget Status:** Recommended

**Attachments:** 0 **Primary Staff:** Paula Stevens

### Section 2: Executive Summary

Long range transportation planning (LRTP) focuses on emerging trends and considers the context within which a multi-modal transportation network serves mobility needs while enhancing economic vitality, community character, human health, and the environment. LRTP anticipates mobility needs and identifies strategies to ensure an adequate level of service for all travel modes. LRTP develops policies for the Comprehensive Plan, manages subarea plans such as the Downtown Transportation Plan, and leads transportation facility planning such as the Transit Master Plan and the Pedestrian & Bicycle Plan. LRTP coordinates with city departments, elected and appointed officials, community groups, business organizations, and outside agencies to ensure that transportation strategies support the city's land use vision and align with regional plans.

Budget Process Outcome: Enhanced elements, Professional svc and LTE Extension, not recommended for funding.

#### Section 3: Responsiveness to Request For Results

LRTP ensures that transportation infrastructure is planned to support Bellevue's land use, economy and quality of life. Transportation needs are analyzed through the Transportation Commission and community engagement so that improvements can be identified, designed, funded and constructed. Representative tasks in 2015-2016 include:

Manage the Downtown Transportation Plan implementation through PW/WB-176 to support the Downtown Livability Initiative, improve access to light rail, and enhance mobility options for all travel modes. Implement the Transit Master Plan to support Downtown growth, Bel-Red corridor redevelopment, and Bellevue's other activity centers with well-connected bus routes that seamlessly interface with East Link light rail. Manage the update of the Pedestrian and Bicycle Transportation Plan to track plan progress and incorporate emerging needs, new tools, and best practices. Initiate development of multimodal mobility level of service standards and concurrency along arterial corridors and through mobility management areas, creating metrics for all modes. Develop a Transportation Master Plan that will consolidate all mobility projects and establish a hierarchy and priorities for mobility options. Collaborate with Planning and Community Development to update the Comprehensive Plan. Manage the PW/WB-56 Pedestrian and Bicycle Access Improvements program to build small-scale, high-value projects that implement the Pedestrian and Bicycle Transportation Plan. Collaborate with other jurisdictions and regional and state agencies to ensure that Bellevue's mobility interests are considered and implemented through regional projects.

Transportation planners lead, co-lead, and support teams for subarea planning (Downtown Transportation Plan/Downtown Livability Initiative), corridor studies (Eastgate/I-90 Project), and "modal" plans (Transit Master Plan). LRTP involves public outreach and interaction with boards, commissions and the City Council. Project managers across the organization seek transportation planners as "subject matter experts" for teams related to the design of roadways, the livability of Downtown, and development around planned light rail stations. Additionally, LRTP partners with other agencies to enhance regional mobility. For example, during the 2012 Eastgate/I-90 Project LRTP secured \$2M from WSDOT to address safety/access concerns at the Lakemont Interchange.

#### **RESOURCES**

LRTP will be accomplished by 2.0 FTE Senior Planners, one Assistant Planner LTE, professional services assistance, and intern support. Management oversight (Assistant Director) is accounted for in the Department Management and Administration proposal (130.04NA).

#### **SCALABILITY**

The LRTP proposal could be scaled back by reducing or eliminating the temporary help and professional services budget; however, these funds are required to secure specific technical expertise and deliver planning services in coordination with related City initiatives.

#### **EXISTING AND FUTURE INFRASTRUCTURE**

LRTP fosters mobility through a comprehensive multimodal strategy with detailed analysis and broad community engagement. Staff work with the Transportation Commission, the appointed body charged with providing recommendations to the City Council, on transportation planning and implementation initiatives such as the Downtown Transportation Plan, the Transit Master Plan and the Capital Investment Program. Staff coordination ensures the timely preparation and transmittal of recommendations.

Transportation planners address mobility options for those who drive, walk, ride a bicycle or take transit. Land use determines the travel demand, and the community expects to have options for getting around. Planners prepare recommendations for innovative approaches to mobility, including a new plan for multimodal level of service that will incorporate metrics and standards for all modes of travel.

The Comprehensive Plan is the city's blueprint for growth. LRTP collaborates with PCD to update the Comprehensive Plan, including policies that guide investments and expectations for mobility. Fourteen subarea plans set neighborhood policy for land use, transportation, and other factors. Many subarea plans are outdated and LRTP staff support and collaborate with PCD on updates.

Modal plans such as the Transit Master Plan and the Pedestrian and Bicycle Transportation Plan create the framework for new capacity for these modes. Implementing modal plans requires diligent attention within the city and with partners such as transit agencies, schools and colleges, and the community to realize success. LRTP plays a key role in these partnerships.

With policies, standards and priorities in place, LRTP ensures Bellevue is well positioned to build and leverage partnerships toward implementing mobility projects. This allows the city to implement projects that support land use and promote economic development, while protecting environmental resources.

#### TRAFFIC FLOW

LRTP works with colleagues to maximize the efficiency of the transportation system. People are surprised to learn that the daily traffic volume on Downtown Bellevue arterials is about the same today as it was in the 1990s. Planning for and implementing mobility options, together with land use planning coordination, has resulted in more people walking, bicycling and using transit, especially for commute trips at peak periods. Roadway capacity is added in strategic locations to support economic growth. For example, dramatic land use changes in Bel-Red will require expanded transportation infrastructure that will also support Downtown growth and mobility.

Capacity improvements accommodate other modes, especially transit. As noted, Downtown has grown dramatically with minimal change to traffic volumes. This has been accomplished through a complementary mix of land uses and transportation infrastructure that support a range of mobility options. Through incentives and system improvements, Downtown transit use has grown steadily since the 1980s at an annual rate of over

20%.

Bicycling and walking, while not regularly quantified, appear to be increasing dramatically as evidenced by occupied bicycle parking and well-used crosswalks. Investments to support trips not made by car have improved traffic flow.

#### **BUILT ENVIRONMENT**

LRTP collaborates with PCD to integrate land use forecasts with the transportation system. Transportation infrastructure when properly planned, designed, and integrated with Bellevue neighborhoods and commercial centers provides mobility and contributes to livability. Involvement of the public creates opportunities for transportation planning to develop plans and projects that meet the needs of the city while fitting properly in neighborhoods.

#### TRAVEL OPTIONS

The Comprehensive Plan contains policies, level of service standards, mode-split targets, and transit mobility targets to "ensure that the full range of travel choices are integrated into local and regional planning." LRTP staff work closely with PCD staff to craft this language, creating beneficial synergies between land use and transportation so that they work together to enhance travel options within the city.

Through the Transit Master Plan, LRTP staff and the Transportation Commission developed the concept of a Frequent Transit Network – corridors where transit demand and service is greatest. The result is a robust transit system that creates meaningful options to single occupancy vehicle use, with more people using transit and less investment needed for expensive peak commute hour infrastructure.

Additionally, LRTP ensures travel options are well integrated between modes. For example, walking to and from the bus extends the range of a pedestrian; LRTP plans for and works to implement the pedestrian network. LRTP also influences the design of land use projects, the quality of the pedestrian environment and transit stops, and the roadways on which transit operates.

# Section 4: Performance Measures and Targets

Code	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	2016 Target
130.0122	Percent of residents who agree that Bellevue is doing a good job of planning for and implementing a range of transportation options	N/A	71.1%	70.8%	N/A	70%	70%	70%

### Section 5: Requested Funding

# 5A: Are any new costs other than inflation included in this proposal?

Not recommended for Funding: Proposal extends the existing Assistant Planner LTE thru 2016 to a full 3-year position (\$81,698-2015 \$56,407-2016 plus \$3,610 Personnel M&O). Enhanced funding for professional services (\$118,600) to support planning initiatives that include: multi-modal level of service framework and implementation, a Transportation Master Plan, and an update of the Pedestrian and Bicycle Transportation Plan.

#### 5B: Are one-time expenditures included in this proposal?

No

### 5C: Are dedicated revenues included in this proposal?

No

### 5D: Are changes to the existing service levels included in this proposal?

Not recommended for Funding: The LTE position and professional services resources will ensure timely and high quality delivery of the Pedestrian and Bicycle Transportation Plan, multimodal level of service framework and implementation, and the Transportation Master Plan. Absent additional funding, planning work will fall out of sync with the timing of related initiatives such as the update of the Comprehensive Plan, and implementation of the Downtown Transportation Plan, the Downtown Livability Initiative, Station Area Planning, and East Link light rail.

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	2.00	2.00
LTE	0.00	0.00
<b>Total Count</b>	2.00	2.00

Operating	<u>2015</u>	<u>2016</u>	
Expenditures	85,894	87,919	
Personnel	270,268	279,522	
Supporting Revenue	0	0	
Rev-Exp Balance	-356,162	-367,441	

### Section 1: Proposal Descriptors

**Proposal Title:** Modeling and Analysis Core Functions

**Proposal Number:** 130.14NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: 130.14NA Budget Status: Recommended

Attachments: Primary Staff: Judith Clark

### Section 2: Executive Summary

This proposal relates to travel demand forecasting and analysis that provides the data and analytical support for City transportation plans and projects, concurrency, and development review. This work integrates land use and transportation plans to forecast and evaluate the impact of transportation system related modifications on traffic patterns and mobility. Having in-house staff to provide travel forecasting ensures consistency, timeliness, and confidence in city planning and project implementation efforts. Modeling and Analysis Core Functions (MACF) strives for seamless collaboration with staff within the department, the City and with agency partners in the region. The voice of the City in regional decision-making is strengthened by credible data and model forecasts. Now, more than ever, demand modeling is supplemented by operational modeling and

# Section 3: Responsiveness to Request For Results

Bellevue depends on travel demand modeling to determine how transportation facilities will best serve the public. Chapter 14.10 in the Code sets up the program for concurrency by which building projects are evaluated against standards set in the code for each mobility area in the city. The model is also used to determine the portion of users due to growth who would travel on a new or improved facility so that the share of costs to be contributed by new development will be covered in the Traffic Impact Fee program.

Modeling is required to support decisions about the size and location of future transportation infrastructure and facilities. It is critical for adhering to best practices in transportation planning and engineering and to maintain legal defensibility. The travel demand model supports Capital Investment Program (CIP) projects and City transportation plans by providing reliable forecasting using land use plans to determine traffic volumes and travel patterns. Levels of service are computed and analyzed to determine the comparative impact of specific alternative improvements.

This proposal focuses on the program of travel demand modeling and forecasting specific to Bellevue. It includes the ongoing update and maintenance of the EMME travel demand model tool and other modeling tools (e.g., Dynameq, VISSIM). Dynamic traffic assignment is used for forecasting traffic operations. This is done with a mid-scale Dynameq model that shows intersection level results. The VISSIM micro-simulation tool has added a level of detail about the future East Link light rail route in Bellevue. With the suite of three models of different scale the appropriate level of detail and effort can be performed at the proper resolution for analysis.

MACF staff not only maintains the EMME &macro& model (which is named BKR for the entire Bellevue/Kirkland/Redmond area) in the annual program but also updates the suite of models. These updates are necessary to keep the models performing at an adequate level.

#### **RESOURCES**

Staff allocated in this proposal consists of 1.0 FTE Manager of Forecasting, 1.0 FTE Senior Transportation Engineer, and 2.0 FTE Senior Transportation Analysts. The staff hours included in this proposal are responsible for both generating forecasts through the various modeling tools and for analyzing the data. Since the data

requests are often tailored to specific requirements, the users of the data (engineers, planners, project managers, etc.) are often very involved in the analysis of the resulting data.

Model database management is important for tracking planned growth and assesses the impact of associated trips on the transportation system. Improvements to modeling tools are incorporated as needed. Training, software, and support are necessary to keep up with software and hardware development as well as new techniques for interpreting future travel demand according to best practices in the profession.

This proposal provides for the base-year model platform to be updated each year and validated for local conditions. Additional work on the concurrency model platform looks out six years to account for Capital Investment Program improvements. Staff applies the model to perform a concurrency determination for development review to ensure that planned developments will not make traffic overly congested. This work is specifically outlined in the Traffic Standards Code.

The travel demand forecasting model is also applied during the development of the Transportation Facility Plan which has a horizon year 12 years in the future. Additional analysis is done on that horizon to determine some components of the Transportation Impact Fee set of projects. A horizon for year 2030 is the one that is typically used for long range plans and design volumes for traffic engineering. During this budget cycle development of an additional platform with a longer scope was developed to support the update of the Comprehensive Plan.

#### **SCALABILITY**

There are times when it is necessary to set aside or mothball the development of new models in order to meet extra high priority work. This occurred when the analysis of a downtown tunnel associated with the East Link light rail line took precedence over model development activities under way at the time. Other ways to scale back have been to delay the updating of external or unincorporated area land use data.

#### **EXISTING & FUTURE INFRASTRUCTURE**

PLANNING. The MACF provides a strong foundation upon which to determine how well plans accommodate future demand for improved mobility. The application of the travel demand model provides the link between land use and transportation planning. Many of the quantitative measures and targets in the plans to improve mobility are set out in the incorporation of land use and demographic data that are integral to the travel demand model. These data and the geographic aspects are key to determining patterns, purposes and modes for forecasting future demand. Further in the planning process the model is used to test how different land use and transportation alternatives will perform. Plans and their implementation via projects and systems usually iterates through forecasting several times during the stages of development.

CONNECTIVITY REGIONAL PARTNERSHIPS. The Model is known as the BKR (Bellevue Kirkland Redmond) model because for many years it has been maintained under a local agreement with both Kirkland and Redmond. This partnership represents an efficient use of resources and it creates a consistent coverage of this portion of our region. On the regional side this work is done in collaboration with the data and analysis group at the Puget Sound Regional Council (PSRC) and with technical staff at Washington State Department of Transportation (WSDOT) and the transit agencies so that plans represented are regionally consistent. Our EMME software licensing costs are kept low as part of an umbrella pricing agreement.

DESIGN. The BKR model represents all motorized modes of travel and where possible forecasts walk trips as well. The system is represented for AM, Midday and PM time periods. In the VISSIM micro simulation, greater detail about the vehicular, bus and rail plans are included. The modeling suite is used to support the various stages of citywide and subarea plans, then again during project design, construction and operation phases.

ECONOMIC DEVELOPMENT. MACF contributes critical information that enhances access to and circulation within commercial and employment centers as a way to support their economic health. This strategy is supported by analyzing traffic flow and options so that traffic standards are maintained. Specific aspects measured in the model are the evaluation of intersection levels of service for the fourteen Mobility Management Areas (MMAs). This is reviewed for every major project proposed for development.

INTEGRATION. Continuing coordination with others having a role in monitoring and modeling throughout the region is an important part of this work program. Current and future land use data is critical to transportation forecasting. Proper representation of the various elements of the transportation modes must be reflected in the specific scenarios of these networks. Exchanging information about what these are and how to model them allows MACF to maintain best practice standards and pass the reviews completed by expert panels.

# Section 4: Performance Measures and Targets

		2010	<u>2011</u>	2012	2013	<u>2014</u>	<u>2015</u>	<u>2016</u>
<u>Code</u>	Performance Measure	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Target</u>	<u>Target</u>	<u>Target</u>
130.0010	Percent of development projects reviewed for concurrency within two weeks of submittal by Development Review staff	100%	100%	100%	100%	100%	100%	100%
130.0179	Number of transportation projects for which reliable forecasts and analysis are prepared for three or more alternatives (as needed for project evaluation and decision making)	N/A	N/A	N/A	10	8	8	8

### Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

NA

5B: Are one-time expenditures included in this proposal?

NΑ

# 5C: Are dedicated revenues included in this proposal?

Redmond and Kirkland Interlocal revenue. Also Development Review Concurrency modeling fee revenue.

#### 5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	4.00	4.00
LTE	0.00	0.00
<b>Total Count</b>	4.00	4.00

<b>Operating</b>	<u>2015</u>	<u>2016</u>
Expenditures	32,434	33,182
Personnel	578,169	597,851
Supporting Revenue	143,934	147,865
Rev-Exp Balance	-466,669	-483,168

### Section 1: Proposal Descriptors

**Proposal Title:** Transportation System Maintenance (Non-Electric)

**Proposal Number:** 130.22NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: "130.22NA~~060.2 Budget Status: Recommended

**Attachments:** 0 **Primary Staff:** Judy Johnson, 4891

### Section 2: Executive Summary

The transportation system infrastructure requires ongoing maintenance and repair services to promote the safety of the traveling public, improve customer travel experiences, to minimize accidents and claims and prolong its useful life. Supported infrastructure includes concrete and asphalt roadways, bike lanes and pedestrian pavements; guard rails, safety rails, traffic curbs, street signs, and pavement markings (such as centerlines, turn arrows, and crosswalks). Response to reported safety issues such as potholes, accident debris, blocking vegetation, potentially hazardous City-owned trees and tripping hazards are included in this proposal. Much of the infrastructure in the City is aging and the need for infrastructure maintenance and repair is increasing. The 2014 Budget Survey indicates traffic and transportation services as top priorities in Bellevue and ranking maintenance of existing streets and sidewalks as the 6th most important of 39 services.

Budget Outcome: Equip not funded

#### Section 3: Responsiveness to Request For Results

This proposal combines three submittals from the 2013-14 budget process to bring control of native vegetation and hazardous tree management in the road right of way into the improved mobility outcome; because they are a direct impact on mobility and transportation safety. Transportation maintenance requires a nimble approach to customer service delivery; as the system is visible to (and impacts the experience of) everyone who lives in and travels through the City. Components of the infrastructure are subject to damage from vehicle impact or overloading, tree root damage, failure of the supporting ground, installation problems, weather conditions (e.g. freeze/thaw, sun, flooding and wind damage), malicious mischief such as graffiti or vandalism, aging, and normal wear and tear. All components of the transportation system must function correctly to maximize mobility and create a safe and smooth experience for the traveling public. Priorities of maintenance work, repair, and response to reported problems shift daily and require every member of the workforce to be trained to perform all tasks and respond to any and all customer needs within established response standards. The 2014 budget survey shows a connection between the maintenance of the roadway system and customer safety, neighborhood value and traveling/living experience.

Transportation system maintenance consists of over 30 direct-service tasks, which are planned each year based on assessment of element condition and tracked by cost/unit, hours/unit, accomplishments actual vs. planned, and performance measures. Lead staff reviews data regularly to assure that priority shifts are made if/as needed and that the product provided meets or exceeds standards at a competitive resource cost. The main tasks, workload factors, budget, and key performance indicators are reviewed quarterly. All employees are trained to perform all tasks and know all customer service standards so they can perform the highest priority need at the time and communicate effectively with the public when questions arise. Preparation for snow and other weather events is included in proposal 130.35NA, Street Sweeping is a separate proposal (130.26NA) under the Healthy and Sustainable Environment outcome.

• SCALABILITY AND PROCESS IMPROVEMENT: Maintenance service levels are scalable; however the impacts of years of resource cuts, service level reductions and cost containment are now apparent. Through ongoing

process improvements, Street Maintenance tasks have been streamlined and infrastructure has been added to the point that maintenance of the aging infrastructure is not at a sustainable level. Further reduction of maintenance resources is NOT advised.

- ROADWAY MAINTENANCE AND REPAIRS (including Pothole Response) includes 1072 lane miles of pavement. Roadway maintenance and repair tasks extend the resources of the pavement management program by repairing spot failures in otherwise sound pavement. This prolongs the life of the surrounding pavement by preventing water from entering through small failures and spreading the damage to larger sections of roadway. The 24-hour response standard for potholes has been studied; there is no substantial cost savings in a 48-hour standard as overtime is seldom required.
- SIDEWALK REPAIR (includes over 340 miles of sidewalk which is approximately 10.7 million square feet): Sidewalk defects, especially conflicts with tree roots, are common problems for all public works agencies. Trip and fall incidents and filed claims have increased in the last several years at the City and other agencies. During the 2011-12 biennium, the in-house repairs were temporarily stopped for a Citywide review of the entire sidewalk network. The decision was made by management staff who were in place at that time to transfer equipment out of the temporarily reduced program to the Utilities work groups. This proposal includes capital expenses to purchase equipment needed to resume the temporarily reduced service, in the same size and type justified back in 2000. Equipment sharing has been attempted however the need schedules are in conflict and renting has proved both cumbersome and expensive. In 2014 alone the rental estimate is over \$38k for a 6-month season.

The backlog of structural sidewalk problems and tripping hazards has been increasing over many years, as of 2012, 5,078 defects impacting over 315,000 square feet of sidewalk were documented, and new methods of repair were tested. A sustainable sidewalk recommendation was brought forward in the 2013-14 budget cycle however the resources were not restored because the economy continued to lag. Less expensive and more effective temporary repair options are being implemented including grinding and gray epoxy wedges where it makes sense to do so; but a high percentage of the time a replacement is necessary. The estimated budget proposed for 2015-16 provides permanent restoration of defects totaling approx. 10,000 square feet per year; a status quo service level. More has not been proposed for this cycle because we are aware there is still little money available. If an increase to 50k square feet of repairs per year is possible beginning in 2017, the City is on an estimated recovery schedule of 14 years to correct the current backlog.

- TRAFFIC SIGNS AND TRAFFIC CONTROL DEVICES (e.g. over 17,000 signs, more than 61,000 feet of guardrail, over 200,000 square ft. of plastic pavement markings, over 1 million feet of paint stripe, and more): Traffic signs, traffic lane markings, guardrails, lane lines, crosswalks, safety railings, and other items designed to inform, direct, and provide predictable and enforceable driver behavior are important maintenance and repair items contained within this proposal. Required by the federal "Manual of Uniform Traffic Control Devices" and the "Federal Highway Administration" (FHWA), they are essential to the safety of the traveling public. They are required to be maintained to standards of legibility and to be reflective to a measured standard when seen in the headlights at night. Also included are installation of signs and safety projects requested by the Traffic Engineering group, often on short notice due to identified public safety issues or accident experience at a location. Street Maintenance staff has the training and can respond quickly when necessary.
- REDEPLOYMENT OF RESOURCES FOR EMERGENCIES: All Street Maintenance staff (as well as some of the staff from other work groups) are re-deployed for emergencies such as windstorms, slides, or ice and snow. These events are staffed by reallocating resources from other planned maintenance and repair programs and impact annual maintenance outputs for all responding work groups. No budget is allocated for emergency response; only for preparedness via budget proposal 130.35NA.

- INNOVATIONS/EFFICIENCIES: The proposed trackhoe/trailer capital expense includes an innovative approach to removal of defective concrete or pavement being replaced. The trailer is to be engineered to convert, using hydraulic supports, into a work platform so that the machine can be utilized without unloading it; not only saving time but also reducing impacts to parking and travel lanes during construction. This method has been proven safe and effective and similar units are in use by contractors.
- EVIDENCE 2014 BUDGET SURVEY: The 2014 Budget Survey indicates traffic and transportation services as top priorities in Bellevue and ranks maintenance of existing streets and sidewalks as the 6th most important of 39 services. Maintenance services fall into the "Above-Average Importance and Above-Average Satisfaction" range. Improved Mobility is ranked the #1 (tied with Safe Community) budget priority in 2014, (up from #6 in 2010 and number 2 in 2012).

#### Service Connections to Results Team Factors and Sub-Factors:

IMPROVED MOBILITY Factors supported by this proposal include Safety and Maintenance under both the [EXISTING AND FUTURE INFRASTRUCTURE] and [TRAFFIC FLOW] factors and their listed purchasing strategies. In [EXISTING AND FUTURE INFRASTRUCTURE], the results team identified the transportation infrastructure as the backbone of any mobility system and as a result a critical factor to improved mobility. In order to continue allocating resources to support new projects and initiatives we must MAINTAIN OUR CURRENT INVESTMENTS; to optimize their efficiency and value. The RFR states that this factor influences each of the other factors: [TRAFFIC FLOW], [BUILT ENVIRONMENT], and [TRAVEL OPTIONS]. Projects and programs that enhance the reliability and maximize the functionality of transportation infrastructure not only ensure that the taxpayers get maximum value for their investments but also are keys to improving mobility. As existing infrastructure nears capacity, we must ensure that infrastructure performs to its full potential. The [TRAFFIC FLOW] factor in the RFR states that CONSIDERATION SHOULD BE GIVEN TO STRATEGIES THAT IMPROVE OR MAINTAIN TRAFFIC FLOW IN ORDER TO MAXIMIZE THE EFFICIENCY OF THE EXISTING TRANSPORTATION NETWORK PRIOR TO ADDING NEW INFRASTRUCTURE; also considering impacts due to the behavior of users of the system. If drivers are weaving out of the normal path of travel due to maintenance issues, there is a direct impact on the traffic flow. SAFE TRAFFIC FLOW THROUGH ALL TRANSPORTATION MODES – BICYCLE, PEDESTRIAN, AND MOTORIST SYSTEMS demands removal of barriers such as potholes, overgrown tree branches and tripping hazards as well as providing and maintaining clear, legible traffic markings and signs to prevent delays caused by traveler confusion. An example: a worn "right turn only" arrow or "right turn must turn right" sign may cause a driver to make a last-minute lane change to go straight.

Maintenance services preserving the City's assets and minimizing risk are concerns set forth in the RESPONSIVE GOVERNMENT outcome under [STEWARDS OF THE PUBLIC TRUST] which states the importance of well-designed and maintained assets, specifying the need to USE BEST PRACTICES TO ASSURE PROPER MAINTENANCE AND TIMELY UPGRADE OR REPLACEMENT OF SUCH ASSETS. Innovative maintenance methods such as the trailer/work platform align with the BEST VALUE and GAINS IN EFFICIENCY Citywide purchasing strategies. Continuous review of inputs to outputs and efficiency measures meet the SOUND BUSINESS PRACTICES and EVIDENCE-BASED APPROACH strategies. Maintenance of the sidewalk and bicycle lane system provides non-motorized facilities suggested in the HEALTHY AND SUSTAINABLE ENVIRONMENT outcome under the [CLEAN AIR] factor. A well—maintained, safe and attractive neighborhood requires infrastructure maintenance as stated in the QUALITY NEIGHBORHOOD outcome, and its [MOBILITY] factor stresses the importance of smooth traffic flow to and around neighborhoods to reduce cut-through traffic and enhance HEALTHY CHOICES.

PARTNERSHIPS: We share traffic control on joint projects with WSDOT and the CITY OF REDMOND. We coordinate with POLICE, NEIGHBORHOOD SERVICES, UTILITIES AND PARKS in graffiti response and prevention.

Partnering with PARKS on tree/sidewalk conflicts is expected to reduce repeat repairs.

For admin. support and customer calls at the Bellevue Service Center (BSC), Utilities Dept. staff is utilized (and reimbursed by the General Fund based on a percentage of time). Conversely, half of a Streets inventory management FTE position is reimbursed as a revenue for work he does for the Utilities Dept.

Roadway repairs extend the service life of the asphalt so that the overlay program dollars go further. The maintenance crews earn revenue from the Utilities Department due to our competitive unit cost per square foot for paving work; and this saves them time and money as well.

# Section 4: Performance Measures and Targets

Cada	Dayfayyaga Masayya	2010 Actual	2011	2012 Actual	2013 Actual	2014 Target	2015	2016
<u>Code</u>	Performance Measure	Actual	<u>Actual</u>	Actual	Actual	<u>Target</u>	<u>Target</u>	<u>Target</u>
130.0015	Percent of potholes filled within 24 hours of notice	97%	99%	100%	99%	97%	97%	97%
130.0016	Percent of critical sign emergency calls responded to within 1 hour	95%	96%	94%	96%	95%	95%	95%
130.0018	Cost per sq ft for Roadway Repaired (By staff, labor, materials, equip))	\$9.05	\$9.21	\$8.88	\$8.49	\$14.50	\$14.70	\$14.70
130.0021	Number of potholes repaired (per each)	563	591	495	265	300	300	300

# Section 5: Requested Funding

# 5A: Are any new costs other than inflation included in this proposal?

Not Recommended for Funding: Set up replacement funds for capital items below and air compressor taken (but needed) due to asset reduction exercise. Replacement fund for GPS unit to gather infrastructure data (innovation).

#### 5B: Are one-time expenditures included in this proposal?

Not Recommended for Funding: Capital costs for purchasing a truck for the Crewleader (due to the reorg.). Also purchase of a trackhoe, trailer/work platform and concrete saw lost in Fleet reduction and department transfers. (All still needed, not a service add.)

### 5C: Are dedicated revenues included in this proposal?

Utilities & CIP are charged for actual work as needed. Utilities funds 0.5 FTE and pays us approx. \$80k/year for paying services they would otherwise pay more to contract out.

#### 5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	19.50	19.50
LTE	0.00	0.00
<b>Total Count</b>	19.50	19.50

<b>Operating</b>	<u>2015</u>	<u>2016</u>
Expenditures	1,310,125	1,340,236
Personnel	1,902,698	1,973,579
Supporting Revenue	145,490	147,839
Rev-Exp Balance	-3,067,333	-3,165,976

### Section 1: Proposal Descriptors

**Proposal Title:** Signal Operations and Engineering

**Proposal Number:** 130.24NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: 130.24NA Budget Status: Recommended

Attachments: 0 Primary Staff: Mark Poch

### Section 2: Executive Summary

This proposal provides citywide signal timing, traffic computer and Traffic Management Center operations, signal engineering, signal timing complaint investigation and response, traffic camera video requests, street light engineering and design, signal and lighting standards and specifications, and emergency management support. The daily signal operations provided in this proposal utilize Intelligent Transportation Systems (ITS) such as the SCATS traffic adaptive signal system to significantly increase system efficiency, and the street light engineering utilizes new LED technology for cost savings and carbon footprint reduction. Detailed operational modeling of roadways and traffic signals is supported for the assessment of proposed roadway changes and mitigations for major projects such as East Link. Daily signal ops provides for the ability to quickly adjust signal timing to address unscheduled/emergency/accident events, road construction, holiday, and special event traffic.

# Section 3: Responsiveness to Request For Results

What the city is buying: This proposal provides comprehensive traffic signal and street lighting operations and engineering. The daily signal operations provided in this proposal will help keep "maintain traffic signals" as a top 5 performing service in Bellevue's comprehensive Operating Budget Survey (Rank = 5 out of 38 in 2012). High level outcomes for this proposal include a coordinated traffic signal system that significantly reduces delay to motorists and quickly addresses abnormal traffic conditions associated with construction, accidents, holidays, and special events. Street lighting is provided that meets light level and uniformity guidelines for roadways and pedestrian facilities and that also utilizes new LED technology for better light distribution and cut off, and cost/energy/greenhouse gas reduction. The many capital, regional, and development projects that install and modify traffic signals, street lighting, and associated communication and electrical infrastructure are reviewed and coordinated, and their associated standards and specifications and updated and maintained regularly. Reviews also consider and promote ADA compliance such as Accessible Pedestrian Signals, truncated domes at ramps, and countdown pedestrian walk displays. Citizens and staff with questions or concerns about signal operations or street lighting have their concerns reviewed and responded to by engineers, and often investigation of these concerns result in positive changes to the system. Emergency vehicles receive the ability to pre-empt traffic signals to decrease travel time and increase safety to emergency calls. Multi-modal transportation is advanced through the ability to signalize midblock pedestrian crossings at high traffic or accident prone locations, to provide transit signal priority along existing and future transit routes, to detect bicycles at traffic signals, and to one day incorporate commuter train operations into traffic signal operations at LRT/roadway grade crossings. Ever changing traffic standards established in the federally mandated Manual on Uniform Traffic Control Devices (MUTCD) and Americans with Disabilities Act (ADA) are evaluated and complied with, and when appropriate deviations are documented with justifications.

Why the service level is appropriate: Signal and Lighting operations is challenging and very time consuming due to the myriad of projects, issues, expectations, and changes encountered in a dynamic city like Bellevue. Regardless, this proposal provides a reasonable level of staffing to meet the needs of this program and the transportation system. Outputs provided by this proposal include:

Traffic computer system and Traffic Management Center (TMC) operations including daily operations, construction, special events, accidents, emergency operations, and holiday traffic Signal timing design and implementation for the i2TMS and SCATS traffic adaptive signal systems. Review and response to traffic signal operation concerns and complaints. Traffic and signal simulation modeling and review for impact, alternative, and mitigation analysis. CIP, Regional, Planning, and Development project review with respect to signals, lighting, ADA, fiber communications, and electrical infrastructure. Update and maintenance of standards and specifications, and compliance mandated standards such as the MUTCD and the ADA. Interagency signal operation agreements with WSDOT, Redmond, and Kirkland. Street lighting request investigation, response, design/modeling, and implementation. Implementation of new street lighting technologies and coordination with grant efforts to implement LED. Signal and street light spot improvement project design. Signal and lighting records management for public requests and liability management. Audible Pedestrian Signal request tracking and prioritization. Reports and performance measure development and tracking. Signal warrant study database (tracking and management of intersections that might need signalization). Capitalization of equipment and scheduling of annual replacement program for the signal shop. Liability reduction/expert witness, interrogatories, depositions, legal assistance.

Traffic operations is dynamic in nature and thus flexibility and prioritization are essential. Immediate concerns such as traffic affecting events like accidents and construction take priority and must be addressed immediately, thus staff coverage hours and essential. Project review deadlines also affect weekly work plans. The most common areas where work is prioritized to gain staff time to address higher priority items include the investigation and response to citizen concerns, the design and implementation of spot improvement projects, and the implementation of changes required by new standards. Again, this proposal has a staffing level that reasonably meets the needs of all areas of work covered in this proposal.

How do the services relate to the purchasing strategies for Improved Mobility: This proposal supports nearly all of the factors. Traffic flow is greatly enhanced through the signal operations provided – for instance the decrease in delay in the afternoon commute from the signal operations provided in this proposal is approximately 11%, with similar reductions during other portions of the day. Existing & Future Infrastructure is planned and designed significantly better through the design review and standards/specification update and maintenance provided herein. Regional partnerships are accomplished through signal operation agreements with WSDOT (we operate 22 of their signals for better coordination), Redmond (please visit http://bellevue.granicus.com/MediaPlayer.php?publish\_id=b1415ec4-e649-1031-a551-f3fb1162b875), and Kirkland (currently under development for the SR-520 project). The Built Environment benefits because land use, destinations, and access to services and leisure are accommodated through the access and mobility provided by traffic operations, signals, and lighting. The environment greatly benefits through reduced vehicle emissions due to signal coordination, and less greenhouse gas production through the use of LED street lights. Travel Options are enhanced though signal and lighting reliability, safety, and the support of multi-modal mobility (APS, pedestrian crossing signals, truncated domes, countdown pedestrian heads, transit signal priority, bicycle detection, and future light rail integration).

What is the Transportation Department trying to accomplish with Signal Operations and Engineering: Bellevue has invested greatly in the development of our roadway network though capital expenditures. This proposal is intended to get the most out of that investment by running what we have built in an effective and efficient manner, and so that the need for additional large capital expenditures is decreased. Transportation also wants to make sure that we have the ability to listen to our customers, respond to their requests, and actually follow though and make changes to traffic signal and street lighting operations when those changes make sense. Lastly, by having a right sized professional signal operations staff, we want to have the ability to be nimble enough to respond to the multiple opportunities that continually arise to advance Bellevue's goals. A recent example includes the opportunity to covert nearly all of our residential PSE street lights to LED. Transportation is working closely with Civic Service/Resource Conservation to implement this project to realize a \$160,000

annual energy savings and the elimination of 470 metric tons of carbon emissions.

What indicators will measure the results of Signal Operations and Engineering: It is difficult for only five measures to capture the entire performance of this proposal, but this many can certainly give insight into significant portions of the program. Measures included at the end of the proposal give insight into the value of the traffic computer and signal timing engineering, responsiveness to the public and ability to make needed signal timing changes, ability to apply new technology with significant cost and environmental benefits, ability to reduce overall energy use, and ability to forge interagency signal operation agreements for the benefit of both agencies. Other measures tracked but not included in the official proposal include total staff, total signals operated, total signals operated for outside agencies for signal coordination, corridors with signal coordination plans, signals with emergency vehicle pre-emption management, total street lights, street light requests from public reviewed/responded, total Accessible Pedestrian Signals, and equipment capitalization completion.

### **Section 4: Performance Measures and Targets**

Code	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	2016 Target
130.0024	PM peak delay reduction from signal coordination	11%	11%	10%	10%	11%	11%	11%
130.0027	Signal timing requests from public reviewed/responded	100	191	208	237	125	135	145
130.0041	New LED street lights installed	12	16	99	269	200	3,800	200
130.0042	Cumulative energy reduction from efficiency measures (kWh)	33,697	40,787	233,000	399,906	500,000	2,000,000	2,100,000
130.0160	Outside agency signals operated for coordination	19	19	20	20	22	26	27

### Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

None

5B: Are one-time expenditures included in this proposal?

None

5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding.

# 5D: Are changes to the existing service levels included in this proposal?

In line with Transportation Department reorganization, the Engineering Manager is reduced from 0.75 FTE to 0.5 FTE. No affect to service levels is anticipated.

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	3.50	3.50
LTE	0.00	0.00
Total Count	3.50	3.50

<b>Operating</b>	<u>2015</u>	<u> 2016</u>
Expenditures	41,642	42,599
Personnel	511,871	529,237
Supporting Revenue	40,728	42,083
Rev-Exp Balance	-512,785	-529,753

### Section 1: Proposal Descriptors

**Proposal Title:** Traffic Data Program

**Proposal Number:** 130.29NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: 130.29NA Budget Status: Recommended

**Attachments:** 0 **Primary Staff:** Mark Poch

### Section 2: Executive Summary

This proposal will continue to provide traffic data to the Transportation Department, the public, and outside agencies. Traffic volume counts, turning movement counts at signalized intersections, speed studies, and intersection delay studies provide valuable information used for developing and maintaining the city's traffic model, improving traffic signal timing, and developing neighborhood traffic safety/calming projects. Traffic data is also required for inclusion in the national Highway Performance Monitoring System used to allocate federal funds to the states. This program also obtains needed data for the Accident Reduction Program, SR 520 toll diversion monitoring, and responds to public requests for traffic data for developers and other citizens.

Budget Process Outcome: Professional services to address neighborhood traffic impacts as a result of growth and development not recommended for funding.

# Section 3: Responsiveness to Request For Results

The Traffic Data Program has provided the Transportation Department with the ability to obtain consistent data at specific locations which is used in planning and modeling traffic for growth, improving efficiencies in traffic signal timing, analyzing traffic issues, and identifying solutions. The City also provides traffic, pavement, and inventory data to the Washington State Department of Transportation (WSDOT) for the Highway Performance Monitoring System (HPMS). The primary purpose of HPMS is to provide transportation information to the Federal Highway Administration (FHWA), which uses the HPMS data for policy and decision making, to set funding levels, and to allocate funds to the states for use in improvements to city, county and state roadways.

The program consists of four primary components. The first two components, mechanical counts and manual counts, are considered mandatory and first priority for completion as they are needed for the city's traffic model. Data management is also mandatory. The speed and traffic studies component is also provided, but often not all requests can be accommodated because of other mandatory work and staff limitations.

#### MECHANICAL COUNTS:

The mechanical volume counts (tubes across the road) are performed once per year at 139 locations. Data from these locations include the screenline counts used by the City's planning model to conduct concurrency studies and forecast future traffic volumes to determine traffic mitigation options for projects. Counts are also provided to WSDOT for the HPMS, and used to monitor traffic diversion associated with SR 520 tolling.

#### MANUAL COUNTS:

The manual turning movement counts are performed in the PM peak period (afternoon rush hour) every two years at the 104 signalized intersections needed for Mobility Management Area (MMA) studies. Turning movement counts in the AM (morning rush hour) and noon peak periods are performed on a request basis, and only as scheduling allows – as are counts in the PM peak period at any other of the 187 signalized intersections in the city.

#### SPEED and TRAFFIC STUDIES:

Typical studies include mechanical speed studies which provide 24-hour speed data for signal warrant studies, traffic calming studies, speed limit review, and various other traffic engineering functions. Other studies include intersection delay studies for signal and stop sign requests, counts for the Accident Reduction Program, origin/destination studies, and pedestrian crossing and bicycle counts. In addition, traffic studies for determining neighborhood protection measures as a result of growth and development city-wide are included in this proposal as an enhancement.

#### DATA MANAGEMENT:

The data management function will continue to include review of count and other traffic data for accuracy; store, maintain and distribute data using customized databases; and calculate the yearly factor update. This function also provides the HPMS update to WSDOT annually, as well as the SR 520 toll diversion analysis. Importantly, data management includes responsiveness to requests from developers, other agencies, and the general public for traffic data, and plans for the maintenance and replacement of program count and study equipment. Request for traffic studies that can't be accommodated are contracted out and this component manages that effort.

SCALABILITY: This proposal is not scalable. This program was reduced down to just one FTE in the '11–'12 budget and any further reductions to a smaller scale are not practical. However, should the program be eliminated, it must be noted that there will still be a cost to the City for a consultant to perform the needed work.

#### **IMPROVED MOBILITY**

#### [EXISTING AND FUTURE INFRASTRUCTURE]

This proposal assists the City in the planning to accommodate future demand by providing data to calculate growth rates and verify Transportation Planning's traffic model. Traffic volume, manual turning movements, and speed study data is used for the annual Accident Reduction Program and for neighborhood project development to improve safety. Program traffic data is available to land developers to help them evaluate development potential, supporting economic development. Traffic data provided for the HPMS program supports our regional partnership with WSDOT. Traffic data is used to help determine the design of various transportation projects.

#### [TRAFFIC FLOW]

The manual turning movement counts at signalized intersections provide data for developing and evaluating signal timing plans to increase the efficiency/capacity of the system and the predictability of travel times. [BUILT ENVIRONMENT]

This proposal provides data to support the development of neighborhood traffic calming projects, enhancing quality of life, character, and livability. Based on these studies, improvements that protect neighborhoods from negative traffic impacts and improve safety for all users of the transportation system can be identified.

### **ECONOMIC GROWTH AND COMPETITIVENESS**

#### [LAND, INFRASTRUCTURE AND PLANNING]

This proposal provides traffic data used by developers for site development.

[QUALITY OF COMMUNITY] By supporting the Accident Reduction Program and development of neighborhood safety improvement projects, this proposal supports well-kept neighborhoods.

The traffic data provided by this proposal supports Proposal numbers 130.14 Modeling and Analysis Core Functions, 130.24 Signals Operations and Engineering, 130.30 Traffic Safety and Engineering, and numerous proposals for Capital Investment Program projects.

Performance within this program is measured by tracking mechanical and turning movement counts needed to complete the work program, and the percentage of these counts delivered on time. Also tracked is

effectiveness of delivering needed traffic data to the Highway Performance Monitoring System.

Section 4: Performance Measures and Targets								
<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	2014 Target	2015 Target	2016 Target
130.0043	Requested volume counts provided to Highway Performance Management System	54	54	54	54	41	41	41
130.0044	% screenline counts delivered on time to modeling	100%	100%	100%	100%	100%	100%	100%
130.0045	% Mobility Management Area signalized intersections with manual turning movement counts delivered on time to modeling	100%	100%	94%	100%	100%	100%	100%
130.0161	Screenline counts to complete workprogram	N/A	139	139	139	139	139	139
130.0162	Turning movement counts to complete workplan	N/A	52	52	52	52	52	52

# Section 5: Requested Funding

# 5A: Are any new costs other than inflation included in this proposal?

Not Recommended for Funding: \$10,000 per year for consultant contracts to address neighborhood traffic impacts as a result of growth and development. Work to include various traffic studies, including speed, volume and license plate studies to assess changing traffic conditions and the potential for implementing traffic protection measures on neghborhood streets.

# 5B: Are one-time expenditures included in this proposal?

NA

# 5C: Are dedicated revenues included in this proposal?

NΑ

# 5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	1.00	1.00
LTE	0.00	0.00
<b>Total Count</b>	1.00	1.00

Operating	<u>2015</u>	<u>2016</u>	
Expenditures	2,650	2,667	
Personnel	104,929	108,680	
<b>Supporting Revenue</b>	0	0	
Rev-Exp Balance	-107,579	-111,347	

### Section 1: Proposal Descriptors

**Proposal Title:** Traffic Safety and Engineering

**Proposal Number:** 130.30NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Enhancing

Previous Proposal: 130.30NA Budget Status: Recommended

Attachments: 0 Primary Staff: Mark Poch, Karen Gonzalez

### Section 2: Executive Summary

In the 2014 Budget Survey, Traffic (39%) and Transportation (21%) were the most commonly mentioned response when residents were asked to name the biggest problems facing Bellevue. This proposal funds Traffic Safety & Engineering svcs for the operation of and improvements to all City transportation systems – except those related to signals and street lights – addressing traffic safety and parking concerns on arterials, neighborhood streets and in school zones. Through a combination of education efforts and traffic safety operational improvements, staff responds to customer requests, designing and implementing traffic safety enhancement projects using various engineering methods including new and innovative technologies and education/public outreach efforts. As members of project development teams, staff provides design guidance and plan review of traffic op and pedestrian safety elements of capital projects.

Budget Process Outcome: Temp help/misc M&O not recommended for funding.

### Section 3: Responsiveness to Request For Results

What the City is buying: This proposal provides for all transportation operations and safety – except traffic signals and street lighting – for the city's transportation network. This is accomplished through numerous programs and work duties intended to proactively and systematically investigate traffic safety and operations.

INVESTIGATIONS: Staff investigates concerns expressed by citizens, staff, and outside agencies regarding traffic operations and safety, including assessments of traffic conditions, traffic data, and field conditions to develop solutions and direct responses back to the requestor. Often improvement projects, both small and large, result from being responsive to concerns related to traffic operations. Staff also manages speed limits, truck routing, parking rules and fines, snow routes, crosswalks, and school speed zones, by answering all inquiries, researching state of the practice, and preparation of council agenda memos and ordinances. ACCIDENT REDUCTION: The Accident Reduction Program lowers injury costs to the public by identifying and addressing traffic accident locations, and results in less measurable public accidents costs (this cost saving is tracked and reported) and fewer traffic related tort liability cases against the city.

CROSSWALKS: The Crosswalk Program establishes priorities for installing new and enhancing existing pedestrian street crossings. As requests for crosswalk improvements by citizens and various sources are made, the locations are reviewed, scored against established criteria, incorporated into a master list of candidate sites, and top candidates are prioritized by staff and placed into the annual crosswalk program for implementation.

GUARDRAILS: The Guardrail Program reviews possible guardrail locations identified by citizens concerns and along with an evaluation of existing guardrails in that year's pavement overlay program, an annual guardrail program is established to improve specific sites with roadside safety hazards.

SPOT IMPROVEMENTS: The spot improvement program provides the design and engineering services needed to develop plans, specifications, and cost estimates to implement a wide variety of projects to meet program and other traffic related needs. Funding is provided through minor capital programs such as PW-M-2, PW-R-46, and PW-M-7, and the management of these capital programs is also provided through this proposal. PROJECT TEAMS: This proposal not only provides for the daily operation and safety of the transportation

system, it also provides the staffing and expertise necessary to staff project teams as part of CIP, development, regional, and planning projects and efforts. This effort is critical to ensure proposed changes to the roadway system are scoped correctly, consistent with established standards, and fit within the safety and operational expectations of the transportation system.

PARKING: Parking is managed through the review of parking concerns on arterial and neighborhood streets and the Downtown parking enforcement contract. Parking concerns range from safety issues to non-resident vehicles parked in neighborhoods due to spill over from adjacent businesses, schools and other public facilities. Staff works with stakeholders to determine recommended solutions, which may include general parking restrictions, time-of-day restrictions, or Residential Permit Parking Zones (RPZ's). RPZ's are established by City Ordinance to restrict non-residential parking on neighborhood streets to residents and their guests.

STANDARDS & COORDINATION: Staff develops and maintains standard drawings, specifications, and SOP's related to traffic issues and American Public Works (APWA) accreditation. Staff coordinates closely with Street Maintenance to ensure roadway maintenance and improvements comply with guidelines and standards, including the Manual on Uniform Traffic Control Devices (MUTCD) and the American with Disabilities Act (ADA), and to request work through a work order process to complete needed changes to the street system that enhance safety and drivability. Interagency coordination occurs with WSDOT, Redmond, Kirkland, and Metro Transit regarding bus stop issues and the maintenance of roadways and trails in limited access, freeway interchange, and shared border areas.

NEIGHBORHOOD TRAFFIC SAFETY: Traffic issues on residential streets can greatly affect neighborhood livability. When neighborhood streets are safe and pleasant, our quality of life is enhanced. This proposal funds the staffing component that responds to citizen requests about neighborhood traffic safety. Staff engages the requestor and other neighborhood residents, community associations, and stakeholders as active participants in the process of identifying the traffic problems and developing a Traffic Action Plan (TAP). A TAP includes education, enforcement and engineering tools specifically designed to best address concerns associated with each location. Traffic safety projects include speed humps, traffic circles, chicanes, partial roadway closures, and street width reductions to reduce vehicles speeds and manage cut-through traffic volumes. These projects also contain educational components, such as Neighborhood Traffic Safety Newsletters, SAFE (Streets are for Everyone) Blog and/or working with residents to utilize a portable radar dolly to heighten motorist's attention to the posted speed limit. These are just a few tools listed in a recently developed "Residential Traffic Guidebook".

SCHOOL ZONE SAFETY: This proposal actively improves traffic safety in school zones as a priority through the implementation of traffic safety education, physical roadway improvements, and school speed limits. Improvements such as School Zone Flashing Beacons that emphasize the 20 mph speed limit when children are present and Pedbee's (Bellevue's pedestrian safety mascot) education program are just two of the many tools staff uses to address vehicle speeds and enhance parent/student awareness of safe walking and driving practices. Implementation of these measures can also ease traffic congestion near schools by encouraging more students to walk or bike, reducing the number of vehicle trips and increasing physical activity. With the recent sharp increase in student population, traffic circulation problems related to pick-up and drop-off issues, especially at elementary schools, have been a significant problem. Staff works closely with parents and Bellevue School District administrators to initiate changes and/or make recommendations for how best to address these issues. Staff is involved in school redevelopments to ensure circulation is appropriately designed and minimizes impact to the surrounding roadways. Staff also supports BPD in automated school speed zone enforcement.

Why the service level is appropriate: The work load and traffic issues within this proposal will always exceed available staff and capital resources due to the extensive roadway system, complexity of issues, and the

appropriate expectations of city leadership and the public. Management spends a significant amount of time producing work plans, prioritizing workloads, and developing and tracking performance measures to ensure orderly and efficient administration of traffic safety and engineering. With the increase in neighborhood requests coupled with neighborhood protection issues associated with Eastlink, Station Area Planning, new development and neighborhood initiatives, staffing levels cannot meet this increased demand, resulting in longer response times as well as project backlogs. As a result, a request for .5 FTE Associate Planner is part of this proposal.

How do the services relate to the purchasing strategies for Improved Mobility: This proposal supports nearly all factors. Existing & Future Infrastructure – Safety is accomplished through thorough investigation of concerns and administration of the numerous programs outlined above. Maintenance is supported through coordination with street maintenance functions. Design, planning, and integration are supported through numerous project teams, and maintenance of standards and specifications. Regional partnerships are supported with WSDOT, Redmond, Kirkland, and Metro Transit. Safety and connectivity promote economic development. Traffic Flow - is enhanced through daily traffic operations, safety programs, spot improvements to enhance capacity, and coordination with street maintenance and right of way use (detour plans for construction). Built Environment – Traffic concerns which impact neighborhood livability are addressed through projects that are "context sensitive" and "fit neighborhood character". In addition, the arterial transportation system is maintained and improved as needed to protect neighborhoods from negative traffic impacts. Traffic engineering of roadways, crosswalks, and bike lanes support land use and access to services. Travel Options - Project teams work to ensure the full range of travel choices and connections are integrated where feasible into the design with bicycle lanes, curb ramps, and walking facilities. Program such as Accident Reduction, Crosswalks, and Spot Improvements (e.g. bike lanes) promote safety and multi-modal access. Safe Community purchasing strategies include the prevention of accidents by proactively implementing traffic safety improvements, including school zone improvements that heighten awareness, decrease speeds and encourage safe walking and bike practices to increase alternatives to being driven to school. Quality Neighborhoods purchasing strategies are met with traffic safety projects strengthening the sense of community by involving citizens in project development and encouraging and supporting mobility by improving streetscape design and public awareness amongst motorists, cyclist and pedestrians to obey traffic laws and respect other users.

What is the Transportation Department trying to accomplish with Traffic Safety and Engineering: Bellevue has a large and diverse roadway network that provides multi-modal mobility in a safe and efficient manner that is sensitive to the needs of both commerce and protecting and preserving neighborhood livability. We seek to continue to provide high quality traffic engineering and neighborhood traffic safety services on a daily basis to provide exceptional roadway operations, and to enhance Bellevue's investment in our transportation system.

What indicators will measure the results: Measures include the value of accident reduction projects in terms of public cost savings, citizen requests investigated and closed within six weeks, the number of project teams staffed, and safety improvement projects designed and/or implemented. Other measures tracked but not reported here include initial responses to citizen concerns within two working days, priority crosswalks on the improvement list and total crosswalks improved each year, neighborhood traffic action plans (TAP's) completed, school safety projects completed each year, total speed feedback signs, total school speed zones with active speed reduction signs, guardrail improvements each year, and number of work orders to street maintenance.

# Section 4: Performance Measures and Targets

<u>Code</u>	Performance Measure	2010 Actual	2011 Actual \$3,500,000.	2012 Actual \$3,550,000.	2013 Actual \$3,650,000.	2014 Target \$3,700,000.	2015 Target \$3,800,000.	2016 Target \$3,900,000.
130.0026	Annual public cost savings from accident reduction projects	00	00	00	00	00	00	00
130.0047	Percent of requests reviewed/responded to with recommendation within 6 weeks	N/A	N/A	73%	53%	80%	80%	80%
130.0089	Number of projects designed and/or constructed per year	N/A	N/A	23	21	25	25	25
130.0145	Number of Customer Concerns to Review	N/A	N/A	114	217	175	175	175
130.0151	Project Teams Staffed (interdepartmental/interjurisdictional)	N/A	N/A	30	35	30	30	30

# Section 5: Requested Funding

# 5A: Are any new costs other than inflation included in this proposal?

The proposal includes .50 new FTE (Associate Planner; \$46,000/year).

Not recommended for funding: Associated personnel M&O expenses (\$900/year)

### 5B: Are one-time expenditures included in this proposal?

None

# 5C: Are dedicated revenues included in this proposal?

Partially supported with CIP funding.

# 5D: Are changes to the existing service levels included in this proposal?

Not recommended for funding: \$15,000 per year in temporary help.

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	9.70	9.70
LTE	0.00	0.00
<b>Total Count</b>	9.70	9.70

Operating	<u>2015</u>	<u>2016</u>
Expenditures	97,211	102,811
Personnel	1,327,967	1,373,629
Supporting Revenue	236,727	244,748
Rev-Exp Balance	-1,188,451	-1,231,692

### Section 1: Proposal Descriptors

Proposal Title: Traffic Signal Maintenance

**Proposal Number:** 130.31NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: 130.31NA Budget Status: Recommended

Attachments: 0 Primary Staff: Mark Poch, Brian Breeden

### Section 2: Executive Summary

This proposal will continue to maintain the City's 187 traffic signals and associated systems (1260+ assets), including standby for after-hour response. This proposal provides departmental, interdepartmental, and regional project review and coordination, as well as One-Call locating services as mandated by law. This proposal does not provide a full staff level because only one of the two electricians comprising the signal maintenance bucket truck crew is provided (cut as part of the '11-'12 budget). Critical, time sensitive maintenance of traffic signal equipment will typically be accomplished by borrowing from other areas (ITS or Street Lighting Maintenance), and other important but less time sensitive maintenance activities will continue to be deferred to a later budget cycle or as time becomes available.

Budget Process Outcome: Capital equipment not recommended for funding.

# Section 3: Responsiveness to Request For Results

What the city is buying: This proposal provides comprehensive maintenance activities for traffic signals and related systems throughout Bellevue. The main benefit of this proposal is to provide a maintained traffic signal system for those who travel in Bellevue in an efficient and cost effective way. By providing a maintained system, mobility/safety/efficiency are all increased, and liability exposure is decreased. For example, if the signal at 148th Ave NE and Bel-Red Rd malfunctions and goes dark or into all way flashing red (failure mode) in the afternoon commute, the increase in delay would be 700% with two mile queues. Maintenance is important so failures are responded to in a timely manner, or so they don't occur in the first place.

Specific work assignments within this proposal include work planning and supervision, maintain 187 traffic signals including 5,500 high efficiency LED signal displays, maintain systems associated with traffic signals (communication troubleshooting, vehicle detection, ped displays and buttons, audible ped signals, etc.), maintain all electronics (signal controllers, conflict monitors, opti-com pre-emption system, etc.), conduct the EERF replacement program (1260+ assets), investigate citizen complaints about signal malfunctions, provide annual intersection safety checks, provide after hour coverage and response through the standby program, administer contracts for traffic accidents repairs and vegetation control, deploy generators for continuity of operations during power outages, Maximo maintenance management and work documentation, administrative assistance (contract routing, po's/reqs, shop timekeeping, etc.), PSE street light customer service program, parts inventory, Capital Improvement Program (CIP)/Regional/Development project review and coordination, One-Call Locates for signal underground electrical facilities, franchise utility coordination, Regional Fiber Consortium design/coordination/construction, Fiber optic cables citywide maintenance including leased conduit/fiber, and WiFi field device maintenance.

The way Bellevue delivers traffic signal maintenance has changed over the years due to the large increase in assets to be maintained versus staff provided. Staff dedicated to signal maintenance has remained basically constant at 7 since 1991; however, during that time period the number of traffic signals has grown from 110 to 187, and assets have grown from 400 to 1260. There is no longer enough staff available to perform regular or preventative maintenance on all assets. As a result, a large part of our maintenance program is to replace

certain "high value" assets on a set schedule (EERF replacement program), preempting unscheduled failures. This strategy has enabled Bellevue to reduce the number of traffic interrupting failures to the signal system, and will allow lower staff levels again this budget cycle. This "replace certain assets on a set schedule" strategy is supplemented with responding both during and after hours to failures that have a critical public safety component (for example, red signal burn out or knocked down signal pole with wires exposed). Because the dedicated two person traffic signal crew and bucket truck was reduced in 2011, we typically borrow from other proposals (ITS or Street Light Maintenance) or utilize a crew chief when possible (reducing supervision and work planning duties) to address these critical maintenance needs that require an aerial crew (and thus two staff). Other more regular and less time sensitive maintenance needs have been deferred, almost completely. Examples include replacing old wiring (a common cause of malfunctions), cleaning and replacing old signal heads, and maintaining in-pavement vehicle detection loops. We recently began once again cleaning and replacing opti-com emergency vehicle preemption system detectors because the system had deteriorated so badly. We are attempting to use capital programs and projects (PW-M-19, PW-M-20, and PW-R-155) to at least start addressing the old wiring concerns since this is no longer available through regular operating budget traffic signal maintenance.

This proposal provides the following benefits:

- During & after hour maintenance if a signal malfunctions or there is a critical public safety related maintenance need, crews respond 24/7/365 to fix the concern and reduce the impact to public mobility.
- Scheduled replacement of high value assets (controllers, cabinets, conflict monitors, audible pedestrian signals, etc) so in-service failures are significantly reduced (EERF replacement program).
- Reduced liability malfunctioning signal equipment results in congestion and accidents. Reducing these impacts through adequate maintenance reduces liability.
- Maintenance management and work documentation through the Maximo system.
- Coordination of all projects (CIP, Development, and Regional) that utilize or affect the traffic signal system including design support and inspection.
- Management, maintenance, and expansion of citywide fiber optic network used by multiple city departments and regional agencies, and leased for city revenue to franchise utilities.
- Locating of underground traffic signal, ITS, and street lighting electrical facilities in accordance with RCW, and maintenance of signal and lighting as-built information.
- Customer satisfaction the 2012 citywide budget survey confirmed the importance of transportation and specifically traffic signal maintenance to Bellevue citizens (ranked 6th highest priority out of 38 services). Providing adequate maintenance is essential to get the full benefit from transportation investments.

Why the service level is appropriate: By changing maintenance strategy to focus on preventative maintenance associated with certain "high value" assets on a set schedule (EERF replacement program), and deferring other maintenance, it is possible to continue with the 2011-2012 budget reductions to this proposal. However, this proposal should be increased by providing 1.0 FTE (journey electrician) to reestablish the fully staffed traffic signal maintenance bucket truck crew that was cut in the '11-'12 budget. The East Link proposal will propose adding another 1.0 FTE (journey electrician) to address additional workload in supporting CIP, regional, and development projects, especially considering the pending development cycle upswing and East Link construction. If additional FTE's are not provided, it is probable that this proposal will continue to meet the basic needs of the traffic signal maintenance function, but project coordination and implementation will suffer.

How do the services relate to the purchasing strategies for IMPROVED MOBILITY:

[EXISTING & FUTURE INFRASTRUCTURE] – This proposal provides dedicated maintenance to traffic signal related infrastructure, increasing the safety, value and integration of such infrastructure. Retrofitting to LED signal indications saves the city \$220,000 in electricity costs annually. By maintaining WSDOT ramp signals, this

proposal leverages regional partnerships. [TRAVEL OPTIONS] – Choices, convenience, and access for all users is provided by maintaining pedestrian and bicycle oriented facilities such as countdown pedestrian displays, audible pedestrian signals, and bicycle detection loops and markings at traffic signals. Reliability of all systems is vastly increased through this offer. This proposal promotes and supports economic development by maintaining traffic signals and thus mobility, a foundation for healthy commerce. By providing and maintaining fiber optic communications to Metro Transit (Rapid Ride), this proposal improves local transit service within Bellevue. [TRAFFIC FLOW] – This proposal is a significant factor in increasing safety and efficiency by keeping traffic signals maintained and in working order. Travel times and capacity are maintained when malfunctions (e.g. traffic signal in flash) are avoided and/or quickly addressed. The generator program can restore power at traffic signals affected by power outages due to PSE problems or severe weather. [BUILT ENVIRONMENT] – By maintaining traffic signals in major corridors, this proposal increase quality of life and livability by encouraging traffic to remain on arterials and out of neighborhood cut thru routes. Traffic signals are often used to provide safe and efficient access to services. By switching to LED traffic signal displays, the environment benefits from 950 metric tons annually of reduced carbon emissions.

Other outcomes and citywide purchasing strategies: SAFE COMMUNITY – proposal provides "Public Works Maintenance", and "Response to Public Works Emergencies." ECONOMIC GROWTH & COMPETITIVENESS – proposal provides "Infrastructure and Quality of Community." This offer supports any proposal that relies on dependable and efficient traffic signal operations, for example Fire/Police proposals (opti-com emergency preemption system), ITD proposals (fiber optic/WiFi systems).

Performance is measured by tracking number of maintenance staff, traffic signals, high value assets, preventative maintenance completion, and intersection safety checks completed. Other measures tracked but not included are after hour callouts, Accessible Pedestrian Signals, and miles of fiber optic cable.

# **Section 4: Performance Measures and Targets**

<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	2016 Target
130.0049	Traffic signal maintenance staff	7	7	7	7	7	7	7
130.0050	Traffic signals	183	184	186	187	189	193	195
130.0051	Total signal assets	950	1,150	1,177	1,268	1,300	1,350	1,400
130.0053	Preventative maintenance program completion	90%	93%	94%	92%	90%	90%	90%
130.0055	Intersection safety checks	45	45	148	109	80	80	80

# Section 5: Requested Funding

### 5A: Are any new costs other than inflation included in this proposal?

New CIP M&O for 2015 = \$46,276 and 2016 = \$47,340 and new Development M&O for 2015 = \$29,289 and 2016 = \$29,963.

### 5B: Are one-time expenditures included in this proposal?

Not recommended for Funding: Capital equipment totaling \$45,000 for a crew truck and radio.

# 5C: Are dedicated revenues included in this proposal?

Partially supported with CIP funding.

#### 5D: Are changes to the existing service levels included in this proposal?

NA

5E: Budget Summa	ry	
FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	7.50	7.50
LTE	0.00	0.00
Total Count	7.50	7.50

Operating	<u>2015</u>	<u>2016</u>
Expenditures	373,036	382,472
Personnel	898,067	932,551
<b>Supporting Revenue</b>	58,227	60,466
Rev-Exp Balance	-1,212,876	-1,254,557

### Section 1: Proposal Descriptors

**Proposal Title:** Transportation CIP Delivery Support

Proposal Number: 130.33NA Outcome: Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Enhancing

Previous Proposal: 130.33NA Budget Status: Recommended

Attachments: 0 Primary Staff: Ron Kessack

### Section 2: Executive Summary

Public surveys have consistently identified transportation issues as a high priority for Bellevue taxpayers. This proposal funds the core functions needed to deliver Transportation Capital Investment Program (CIP) projects and programs in a cost-effective, timely, and efficient manner. These core CIP functions reflect the work needed to take transportation capital projects from proposal to reality: pre-design activities, preliminary and final engineering design, project management, construction management, contract administration, construction inspection, construction materials testing, financial management, and CIP public involvement.

#### Section 3: Responsiveness to Request For Results

The Transportation CIP Delivery Support functions ensure that projects are adequately designed and constructed to meet the needs of the users and the community; comply with federal, state, and city standards and regulations; completed within established budgets and schedules; and involve the public at key decision points throughout the projects development process. Current staffing is shown below but will be right-sized to reflect the resources needed to deliver the 2015-2021 CIP, as recommended by the LT CIP Panel and approved by Council.

CIP Delivery Support consists of the following functional descriptions:

Assistant Director, Capital Program Services (1.0 FTE)

Construction Division Management (1.0 FTE)

Principle Office Engineering (1.0 FTE)

Design Engineering (1.5 FTE)

Public Works Contract Administration (1.0 FTE; 1.0 LTE)

Materials Testing (1.0 FTE; 1.0 LTE)

Resident Engineering (1.0 LTE)

Design Division Management (1.0 FTE)

Construction Inspection supervision (1.0 FTE)

Project/Program Management (4.5 FTE)

Construction Inspection (4.0 FTE; 3 LTE)

Administrative Assistance (0.5 FTE)

CIP Public Outreach (2.0 FTE)

The proposed budget for Transportation CIP is equal to or greater than most previous four years. The number of projects in the LT CIP Panel recommended for design and construction funding are very large and complex, have federal or state grant funds, requiring much more documentation and process than a &normal& project. The new functions of the Principle Office Engineering and the Resident Engineering are added to address the design and construction engineering complexities and the required documentation to comply with state and federal regulations. These projects will require coordination with private development projects, East Link and will have major impacts on the public and adjacent businesses, thus requiring increasing our public outreach resources. Regional Projects is now included in this proposal and may require supplementation based upon any funding package approved by the Legislature during 2014 or the upcoming biennium.

Based on past experience, 14-years of data from workload/workforce analysis, and a comparison of the size of previous CIP's, the FTE count in this proposal will reflect the resource level needed to deliver the 2015-21 CIP, approved by City Council.

Section 6: Mandates and Contractual Agreements

All City CIP Delivery Support functions are required to implement and enforce federal and state contractual agreements and mandates, on federal and state funded CIP projects. These contractual agreements and mandates could be from the Federal Highway Administration (FHWA), federal Americans with Disability Act, etc.

SCALABILITY: Staffing for this proposal will be based upon resources needed to deliver the 2015-2021 CIP as recommended by the Leadership Team CIP Panel and the City Council. Right-sizing of staff will be determined based upon lessons learned from previous CIP delivery history.

- [EXISTING & FUTURE INFRASTRUCTURE]: The CIP Delivery support functions ensure that delivered projects are well designed and constructed to maintain and optimize the efficiency of Bellevue's current infrastructure investments. New capacity projects are designed/built to accommodate future growth and demands. Pedestrian/Bicycle improvement projects address the need for multi-modal infrastructure, provide safe facilities and convenient connections. The CIP delivery groups work in partnership with other Transportation agencies: local, county, regional, state, or federal, to maximize the benefits of investment to Bellevue.
- [TRAFFIC FLOW]: In the past 12 years, the CIP Delivery staff has designed/constructed 13 signal projects that resulted in reducing accidents and maximizing the efficiency/effectiveness of the flow of traffic. Staff also constructed several channelization and intersection capacity improvement projects that clear barriers to traffic flow and increased traffic capacity.
- [BUILT ENVIRONMENT]: The CIP Delivery support team designs and constructs large projects in commercial areas that result in promoting and supporting the economic vitality of the City. The team also designs and builds context sensitive non-motorized projects that incorporates the feel and character of the neighborhood. They also developed specific designs to protect the neighborhoods from negative traffic impacts.
- [TRAVEL OPTIONS]: The CIP Delivery support team designs and constructs a variety of infrastructure projects that provide for and promotes a full range of travel options. These projects provide convenient access to all users and improve connections between various travel modes and other destinations such as parks, schools, shopping and employment centers.•
- RESPONSIVE GOVERNMENT [EXCEPTIONAL SERVICE]: The CIP Delivery Support team works collaboratively with property/business owners to mitigate project impacts resulting in very high business and property owner satisfaction. RESPONSIVE GOVERNMENT [STEWARDS OF THE PUBLIC TRUST]: The CIP Delivery Support team has a very good track record of designing and constructing CIP projects on time and under budget.
- INNOVATIVE, VIBRANT AND CARING COMMUNITY [INVOLVED CITIZENS]: It is well established that the City's public outreach and community involvement in Transportation projects is exemplary. For example, the City developed and executed a very extensive public involvement plan for the West Lake Sammamish Parkway corridor improvement project that achieved informed consent on the scope of the improvements from various adjacent communities, users groups, and other interest groups that had competing and conflicting views and interests.

Partnerships: The CIP Delivery Support team works closely with outside agencies such as WSDOT, Sound Transit, on regional projects to ensure that the City's interests are protected. For public involvement, the BDA, the Chamber, Bellevue Schools, PSE, and other organizations are frequent partners.

Collaboration: The CIP Delivery Support staff collaborates closely with internal and external stakeholders through a structured approach called Integrated Design as part the Project Delivery Roadmap, to improve

efficiency and reduce cost on projects.

This proposal is the parent proposal that supports the approved Transportation's CIP program and discrete project proposals. It funds the core functions needed to deliver the 2013-2019 Transportation Capital Investment Program. One of the functions of the CIP delivery is to perform in-house design on some projects. This reduces the design cost significantly when compared to the cost of contracting this design work to engineering consultant firms.

### Section 4: Performance Measures and Targets

<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	<u>2016</u> <u>Target</u>
130.0059	Total percentage variance of actual construction costs from the original construction contract	N/A	N/A	-2.6%	9%	6%	6%	6%
130.0060	Design cost at bid award as percentage of contract cost	N/A	N/A	14.7%	13%	22%	22%	22%
130.0061	Construction engineering labor cost as percentage of contract cost	N/A	N/A	N/A	N/A	10%	10%	10%
130.0062	Percent of survey respondents that rate completed projects as meeting or exceeding their expectations	N/A	N/A	N/A	61%	75%	75%	75%

# Section 5: Requested Funding

### 5A: Are any new costs other than inflation included in this proposal?

Includes costs associated with 2.0 LTE's, an LTE inspector extended to its full 3 year period and 1.2 FTE (Data Analyst ~\$93,000/year, Sr. Engineer ~\$130,000/year, Sr. Proj. Inspector ~\$103,000, PIO ~\$114,000/year) and associated personnel M&O that are ongoing in nature (\$2,500/year)

### 5B: Are one-time expenditures included in this proposal?

Costs associated with new LTE's and FTE in 2015 are ~\$10,800

### 5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding.

### 5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	19.50	19.50
LTE	6.00	4.00
<b>Total Count</b>	25.50	23.50

<b>Operating</b>	<u>2015</u>	<u>2016</u>
Expenditures	83,525	68,399
Personnel	3,272,784	3,117,789
Supporting Revenue	3,366,113	3,195,502
Rev-Exp Balance	9,804	9,314

### Section 1: Proposal Descriptors

**Proposal Title:** Emergency Mgmt/Preparedness for the Transportation System

**Proposal Number:** 130.35NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

Previous Proposal: 130.35NA Budget Status: Recommended

Attachments: 0 Primary Staff: Judy Johnson, x4891

### Section 2: Executive Summary

This proposal provides equipment, training, preparedness plans, and stocks materials for transportation system emergencies such as snow and ice storms, windstorms, and earthquakes. This includes equipment preparation, developing and updating emergency response priority maps, detour route information and signage, and stocking traction sand, anti-icer, and de-icer. Also included are regular updates to emergency management plans and procedures, emergency response training and exercises, emergency management team meetings (both departmental and citywide) and other activities contributing to preparedness. An average amount of small-scale load-up, ice patrol and insignificant hilltop snow response or ice prevention is included. Funding for full-scale event response is not included in this proposal.

Budget Process Outcome: Capital equipment (AVL system & support) not recommended for funding.

# Section 3: Responsiveness to Request For Results

Transportation has many critical role in responding to events such as inclement weather (such as ice, snow, or wind storms), flooding, natural and man-made disasters, and major emergency incidents in order to keep the transportation system operational. Collaboration and cooperation is imperative since the operating groups in several City departments count on staffing and assistance from each other to respond to emergencies. For example, Transportation has the lead on ice and snow response and Utilities has the lead on flooding response but employees in each work group join in to respond to any of these emergencies. These work groups must be organized and prepared to react to any situation and respond to a variety of potential events. These preparedness efforts are made successful by thorough communication, planning, training and education.

EMERGENCY MANAGEMENT INCLUDES FOUR PHASES: MITIGATION, PREPAREDNESS, RESPONSE AND RECOVERY. SERVICES PROVIDED BY THIS PROPOSAL INCLUDE:

- Snow and ice preparedness such as stocking materials needed for event response (e.g. traction sand and deicer), post-response cleaning of deicer from equipment and treating equipment with corrosion inhibitor, preseason testing of equipment to ensure functionality, and repairing or replacing equipment and tools.
- Applying proactive anti-icer based on forecast conditions.
- Coordinating response priorities with partners, including the Parks, Police and Fire Departments.
- Maintaining and updating maps and logs for field crews, and preparing and presenting training for dispatchers, field coordinators and plow operators (including staff from other departments).
- Continued improvements in communication protocol between departments and between city hall operations staff and field dispatch centers.
- Contracting meteorology services to monitor weather forecasts specific to Bellevue regularly; preparing communications and readying response preparations when weather is forecast to reach emergency response conditions (such as including loading sanders and plows when the weather warning is forecast).
- Updating the emergency preparedness guidelines and resources including roles and responsibilities of emergency functions, reporting procedures, communications and command center protocol; organizing the department emergency management team; and participating on citywide preparedness teams.
- Ensuring staff compliance with mandated training and developing ongoing training protocol and exercises.

- Participating in regional emergency management and Zone 1 activities, in the updates to the City's Emergency Operations, Hazard Mitigation and Continuity of Operations Plans.

  ASSOCIATED REQUIREMENTS:
- WAC 118.30 Local Emergency Management/Services Organizations. Plans and Programs. Requires cities to maintain emergency operations plans based on hazard analyses.
- RCW 38.52 Emergency Management. Requires local jurisdictions to develop comprehensive emergency management plans and programs consistent with the State Comprehensive Emergency Management Plan.
- Code of Federal Regulations (CFR) Title 44, Chapter 1. Part 201. Requires that jurisdictions develop mitigation plans to be eligible for federal mitigation grants.
- Homeland Security Presidential Directive-5. Federal law requires the use and implementation of the National Incident Management System (NIMS) in order to receive grant funds.

#### EVIDENCE AND LOGIC SUPPORTING THIS PROPOSAL:

- The 2014 Budget Survey carries messages from the Bellevue citizens regarding preparing for emergencies. It is listed as the #12 priority service out of 39 and was in the top 10 in both 2010 and 2012. There is work to be done, as this service remains in the "above-average importance/below-average satisfaction" category. Public safety and improved mobility are listed in the survey as priority one.
- Emergency management and preparedness is integral in moving traffic through Bellevue smoothly, efficiently, and safely as possible even under extreme conditions. This work is critical to providing drivable routes for emergency response vehicle access to citizens in need during weather events. Response efforts are prioritized with high-use roadways and safety-critical destinations (such as hospitals and fire stations) in mind. By being proactive in preparedness efforts, City operations staff have worked together to react effectively to recent emergency situations including the 2006 wind storm, the 2012 freezing rain and extended snow event. Immediate coordination with Fire and Police is the standard.

#### INNOVATIONS, COLLABORATION, AND COST SAVINGS

- An entry-level Automated Vehicle Locating (AVL) system has been requested for this program. Utilizing AVL system for vehicle tracking during storms would assist dispatchers in tracking of resources and call response during events (vehicles are currently tracked with sticky notes on a map). The nearest unit can be easily determined real-time by glancing at the map. This provides us the opportunity to get help to the scene quickly and clear the way for emergency services. In the longer-term it could be updated to streamline the documentation of services provided at a specific location and time. WSDOT has found this to be helpful in claims resolution; Seattle uses it as well.
- Once Parks' facility plow priorities have been accomplished, they are able to send help for the Transportation system in the form of plows with drivers to assist.
- Response is reviewed in an after-event briefing every time we have a significant response. At that time plans are reviewed and updated based on lessons learned.

SCALABILITY: For emergency preparedness activities, scalability by reducing supplies in stock or pre-season equipment preparation would slow response efforts by not having the materials and equipment ready when an event occurs. Emergency preparedness and response are the most important functions we perform as public sector employees. Being prepared in advance to respond to events such as earthquakes, wind storms, and snow and ice events facilitate keeping the main roads accessible for police and fire vehicles and promote timely response to emergencies such as house fires. Scaling back this service is not recommended.

#### CORRELATIONS TO REQUESTS FOR RESULTS

This proposal continues to refine the response priorities map and emergency response needs based on years of lessons learned, conditions encountered, and area-wide jurisdictional coordination so that the City is well prepared for events. This minimizes traffic delays during inclement weather or other emergency conditions, reduces the impacts to infrastructure, and maximizes resources to do the most good for the most people. Preparedness for response to inclement weather conditions is necessary for safe travel conditions on the Transportation system. These IMPROVED MOBILITY (IM) values and factors are supported by the Emergency Mgmt/Preparedness for the Transportation System proposal:

- COMMUNITY VALUE STATEMENTS Bellevue values "a safe transportation system for all users", and "a convenient, efficient, and reliable transportation system that connects people to the places they want to go". They want to be able to travel within the City in a reasonable and predictable amount of time.
- [TRAFFIC FLOW] FACTOR AND PURCHASING STRATEGY "maintain traffic flow in order to gain the most efficiency out of the existing transportation network"; "provide for road maintenance and timely system repair"; "effectively clear barriers to traffic flow"; "Include preparation for severe event response". Priority response map takes into consideration routes which will carry traffic in the safest and most efficient way based on roadway conditions and is made available to the public in advance for travel planning. When needed, such as during flooding events, detour routes and signage help direct citizens to safe routes. This program enhances motorist safety and the efficiency of traffic flow by clearing mobility problems quickly.
- ALL IMPROVED MOBILITY FACTORS AND STRATEGIES "Safety is a central concern in designing and operating the transportation system, and is embedded in all factors".
- "Emergency Management function overlaps with Safe Community; proposals for equipment, emergency, or annual work related to restoring travel capability during severe events should be directed to IMPROVED MOBILITY".
- CITYWIDE PURCHASING STRATEGIES regarding "best value", "gains in efficiency", "collaboration", "sound management of resources" and "innovation" have been demonstrated by continually improving based on lessons learned in each event, including the "Innovations, Collaboration, and Cost Savings" list in Section 4.
- SAFE COMMUNITY Factors and purchasing strategies entitled: "Planning and Preparation" and "Response": "Bellevue can gain the confidence of its citizens by providing rapid and effective response to a man-made or natural disaster"; "demonstrate that a plan is in place to respond to an emergency and that the plan will work" and this includes references to emergency management and training. Emergency procedures are in place for all anticipated scenarios and weather conditions are monitored so that staff and the related equipment are brought to readiness in time to react to inclement weather events.
- QUALITY NEIGHBORHOODS. FACTOR 3: PUBLIC HEALTH AND SAFETY Provide prevention education including emergency preparedness; Community awareness is achieved through open houses, web updates during response activities, and list serves providing information on how citizens can prepare and react to weather emergencies. Customers are confident that the City will respond to events as soon as possible.
- Cooperation with ADJACENT COMMUNITIES guides the route connections between cities, and using a common anti-icer/de-icer product allows for purchasing advantages, mutual support, and sharing of supplies. Transportation leverages partnerships in an eight county area by participating in regional groups; this work includes planning scenarios and guidelines for catastrophic event response area-wide.

# Section 4: Performance Measures and Targets

<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	2013 Actual	2014 Target	2015 Target	2016 Target
130.0063	Workload and call tracking are monitored for each event and positive feedback received from the community and City Council	N/A	100%	100%	100%	100%	100%	100%
130.0064	Stock is on hand, staff trained and equipment ready for ice and snow and winter storms by November 15 of each year	100%	100%	100%	100%	100%	100%	100%
130.0065	Sufficient store of materials for the first 48 hours of an event	N/A	100%	100%	100%	100%	100%	100%
130.0066	Preventable equipment breakdowns in the first 12 hours of the event	N/A	0	0	0	0	0	0

# Section 5: Requested Funding

# 5A: Are any new costs other than inflation included in this proposal?

Emergency response supplies (i.e., sand and deicer) for new infrastructure from development that is now the City's responsibility to maintain is funded.

Not recommended for Funding: Ongoing IT and subscription support for Automated Vehicle Locating (AVL) system.

# 5B: Are one-time expenditures included in this proposal?

Not recommended for Funding: Entry-level AVL equipment and support.

# 5C: Are dedicated revenues included in this proposal?

NA

# 5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	2016
FTE	2.00	2.00
LTE	0.00	0.00
Total Count	2.00	2.00

Operating	<u>2015</u>	<u>2016</u>	
Expenditures	168,182	172,051	
Personnel	179,076	185,898	
Supporting Revenue	0	0	
Rev-Exp Balance	-347,258	-357,949	

### Section 1: Proposal Descriptors

**Proposal Title:** Transportation Implementation Strategies

**Proposal Number:** 130.36NA **Outcome:** Improved Mobility

Parent Proposal: Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Enhancing

Previous Proposal: 130.36NA, 130.34N Budget Status: Recommended

Attachments: 0 Primary Staff: Eric Miller

### Section 2: Executive Summary

Develop plans and strategies to implement high priority, multi-modal transportation system capital improvement projects, operations and maintenance programs, and efficiency-enhancing travel demand management programs. Staff work collaboratively to enable a seamless transition of citywide priorities from long range planning through project funding, design, construction, operations and maintenance phases. Comp. Plan-based criteria and community engagement processes are employed to ensure the transportation sections of the funded 7-year CIP Plan, the City Code-required 12-year Tr. Facilities Plan (TFP), and the state statute-required local Tr. Improvement Program (TIP) are updated and administered as required. Work program includes development and administration of the Dept's external funding programs including impact fees, grants, and interagency partnerships.

Budget Process Outcome: Enhanced resources for development of special assessment structures not recommended for funding.

### Section 3: Responsiveness to Request For Results

Transportation Implementation Strategies (TIS) staff funded by this proposal work collaboratively with all Department divisions, inter-departmentally, and with outside agencies/forums to accomplish these major objectives:

FACILITATE REQUIRED BIENNIAL TFP UPDATE PROCESS. DIRECTIVE: RCW 82.02.050 and Chapter 22.16 of the Bellevue City Code (BCC) require that every two years the Transportation Commission review and update the TFP for City Council adoption. The TFP is a bridge between the long-range sub-area/mode-specific facility plans adopted into the Comprehensive Plan and the funded CIP. The financially constrained TFP identifies the top priority projects citywide and forms the basis of the City's Transportation Impact Fee program. CONDUCT BIENNIAL UPDATE/ONGOING ADMINISTRATION OF THE TRANSPORTATION CIP PLAN. Facilitate project scope refinement, cost estimation and capital programming (detailed budgeting by year) associated with updating/amending the transportation program areas of the CIP (Roadways, Intersections, Walkways/Bikeways, and Maintenance/Minor Capital). This CIP effort also involves development and evaluation of ongoing capital programs established to address emerging maintenance, safety, or minor capital needs.

FACILITATE REQUIRED ANNUAL LOCAL TIP UPDATE PROCESS. DIRECTIVE: RCW 35.77.010 mandates all local jurisdictions to annually adopt and submit to the state a 6-year program of transportation improvements, the local TIP, by the end of June. Unlike the CIP and TFP, the local TIP is not revenue constrained, so any project can be included that would be implemented within the 6-year timeframe, if funding were available.

SECURE AND MANAGE STATE AND FEDERAL GRANTS. Comprehensive Plan Policy TR-105 directs staff to "aggressively seek state and federal funds for transportation, capital, maintenance, operational, service, demand-oriented improvements." This function researches funding opportunities; develops competitive applications (7-12 per year); and assists project managers and finance staff with post award grant management. Currently, more than \$17 million in secured transportation grant revenue is programmed in the 2013-2019 CIP. ADMINISTER TRANSPORTATION IMPACT FEE PROGRAM. Work with Planning & Community Development and Development Services staff to ensure timely update and application of the city's Impact Fee program. There is

currently close to \$40 million in actual and projected impact revenue programmed in the 2013-2019 CIP. MANAGE SPECIAL ASSESSMENT STRUCTURES (New). Monitor opportunities to form special benefit districts, such as Transportation Benefit Districts (RCW 36.73) and Local Improvement Districts (RCW 36.43-56, to ensure that those who benefit from projects participate in the financing of the projects. Staff will manage consultant contracts for feasibility & special benefit analyses, ensure mandated processes are adhered to, conduct community outreach, and coordinate with Finance staff on long term administration of the districts. DEVELOP INTERAGENCY PARTNERSHIPS. Work with other agencies to create mutually beneficial partnerships and monitor the implementation of resulting interlocal agreements (i.e. cost share agreements with WSDOT). This effort supports staff participation in regional funding forums and funder coordination. ADMINISTER CIVIL RIGHTS COMPLIANCE PROGRAM. DIRECTIVES: Cities accepting federal funding are required to comply with Title II of the Americans with Disabilities Act (ADA) and Title VI of the Civil Rights Act to remain eligible to receive federal funding. Staff coordinate the departmental Title VI program and participate on ADA committees; update compliance plans and annual progress reports; train staff. TRANSPORTATION DEMAND MANAGEMENT (TDM). DIRECTIVES: State Commute Trip Reduction (CTR) law (RCW 70.94.527) and BCC 14.10; and Transportation Management Programs (TMP) BCC 14.60.070,080. TDM improves roadway system efficiency by increasing the viability and appeal of transportation modes other than driving alone, and building market for transit, car- and vanpooling, and other travel options. The CTR law directs the city to develop a plan and enact regulations that require large employers to operate programs for reducing commute trips at their worksites. TDM staff oversees an implementation contract with King County (funded by a state grant) for assisting Bellevue's 55 affected worksites, which employ 26% of workers citywide. Local TDM resources fund and provide oversight for a similar contract with King Co. to monitor trip reduction programs required at 30 large buildings – per TMP conditions imposed at time of development. To reach non-CTR employers, workers and residents, the city partners with King Co. and the Bellevue Downtown Assoc. to

Local TDM resources also fund/operate a Bellevue-focused travel option website, www.ChooseYourWayBellevue.org. In downtown, between 2008 and 2011, approximately 5,000 persons shifted to a non-drive-alone mode.

implement the adopted Connect Downtown Plan in downtown and the citywide travel-shed for downtown.

These programs and services ensure transportation capital investments are scoped, prioritized, and funded to best achieve IMPROVED MOBILITY. Long before Budget One, this program's processes were crafted to address each of the factors and purchasing strategies now determined to be critical to improved mobility. These processes are also consistent with best management practices for capital programming and project prioritization identified by the American Planning Association, the Government Finance Officer's Association, and the Washington State Office of Financial Management.

RESOURCES. The proposal requires a total of 5.5 FTEs: 0.5 Implementation Strategies Division Manager, 1.0 Senior Planner, 1.0 Associate Planner, 1.0 Transportation Grants Program Manager, 1.0 Program Administrator, and a 1.0 Special Assessment District Program Manager (New). Other resources include M&O funding for professional services contracts to support environmental analysis, cost estimating, assessment district & capital project feasibility studies, translation services, compliance program training materials, and Transportation Management Program administration contracts. The program will also continue the use of a student intern hired for research and other implementation strategy activities.

[EXISTING AND FUTURE INFRASTRUCTURE] - The processes conducted by this function have historically given top priority to "safety and maintenance" investments that maximize the benefits and lifespan of the existing transportation infrastructure. This proposal also entails the final, critical phase of the transportation planning process, the identification of high priority, high value projects to advance. Capital investments are prioritized, in part, based on their ability to leverage outside funds and regional partnerships. This function takes the future infrastructure plans developed by Long-Range Planning for specific sub-areas (i.e. Downtown, Bel-Red) or

specific modes (Pedestrian/Bicycle, Transit) and prioritizes on a citywide basis to best serve citizens of Bellevue. As a result, anticipated land uses are supported, which generates opportunities for economic development. [TRAFFIC FLOW] - Both the need for and the benefit of candidate transportation facility improvement projects and demand management strategies are evaluated on a technical basis to determine their value for improving traffic flow. Each roadway and intersection capacity project is studied and prioritized for its ability to maximize efficiency and minimize travel time. Safety projects and program investments are also analyzed for their ability to respond to identified high accident or high risk locations.

[BUILT ENVIRONMENT] – The 12-year TFP and 7-year CIP help determine the vehicular projects that will best serve existing and planned developments and destinations. These projects directly support the City's economic vitality. Other project priorities are determined based on their ability to preserve or enhance the character and livability of the city and its neighborhoods.

[TRAVEL OPTIONS] - This proposal includes the review and prioritization of mobility investments that enhance the provision of safe and predictable travel choices including vehicular, transit, pedestrian, and bicycle system improvements and connections. The TDM program plays a key role in educating the community about available travel options and facilitating marketing activities to increase use of travel options.

Program staff partner with all Transportation Department divisions and numerous other City Departments in the development, scoping, costing, prioritizing and programming of transportation planning, facility implementation, and programmatic investments. By involving all interests, staff can maximize the efficiency, cost saving, and innovation potential of transportation facility planning and capital programming. Staff partner with local, regional, state, and federal agencies to fund projects through all implementation phases.

This proposal combines two offers from the 2012 process (130.34NA & 130.36NA). The work of a Local & Regional Travel Options specialist is now integrated with TIS, advancing implementation of the City's modal plans (i.e. Transit Master Plan). Combining the proposals will better coordinate and manage the workload among planning and implementation staff.

The work of this group directly supports multiple operating proposals and the delivery of specific CIP projects and programs, including but not limited to: 130.13NA – Long Range Transportation Planning; 130.33NA – Transportation CIP Delivery Support; 130.35NA – Emergency Mgmt. & Preparedness for the Transportation System; 130.57NA – W/B-76 Neighborhood Sidewalks Program; 130.83NA – W/B-49 Pedestrian Facilities Compliance Program; and 130.84NA – W/B-56 Pedestrian Access Improvements Program.

SCALABILITY. The enhanced element of this proposal, management of special assessment structures, need not be funded if it is not supported by the City Council.

# Section 4: Performance Measures and Targets

<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	2014 Target	<u>2015</u> <u>Target</u>	2016 Target
130.0067	Percent of Mobility Management Areas (MMAs) meeting level of service and concurrency standards	100%	100%	100%	100%	100%	100%	100%
130.0068	Percent of Transportation CIP supported by nonlocal revenue sources	11%	17%	27%	17%	15%	15%	15%
130.0069	Number of formal complaints or legal assertions related to Title VI and ADA issues associated with transportation processes or facilities	0	0	0	0	0	0	0
130.0114	Percentage point difference between Drive-Alone- Rate (DAR) at Bellevue CTR sites and all King County sites (based on biennial survey; 2-year lag)	6.3	10.9	10.9	N/A	6	6	6

#### Section 5: Requested Funding

# 5A: Are any new costs other than inflation included in this proposal?

Not recommended for funding: The proposal includes 1.0 new FTE (Program Manager; \$119,000/year) and associated personnel M&O expenses (\$8,400, mostly 1-time) plus additional professional services allocations (\$50,000/year) to support consultant services necessary to research and develop a "renewed" special benefit district program.

# 5B: Are one-time expenditures included in this proposal?

NA

### 5C: Are dedicated revenues included in this proposal?

Revenues included in this proposal are for Commute Trip Reduction and CIP activities.

Not recommended for funding: The costs related to the Special Assessment Structures element of the proposal will be eligible for reimbursement through future property assessments.

# 5D: Are changes to the existing service levels included in this proposal?

Not recommended for funding: Management of special assessment structures is a new program area. This function will ultimately generate revenue from benefiting property owners but will potentially impact workload in Civic Services (Real Property), Finance (Debt Mgmt. & Bond Counsel), and CAO (Outside Counsel Support & Admin.). Costs will partially be offset by Transportation CIP project revenue.

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	4.50	4.50
LTE	0.00	0.00
Total Count	4.50	4.50

Operating	<u>2015</u>	<u>2016</u>
Expenditures	224,584	177,519
Personnel	588,482	608,776
Supporting Revenue	93,047	67,418
Rev-Exp Balance	-720,019	-718,877

### Section 1: Proposal Descriptors

**Proposal Title:** Pavement Management

**Proposal Number:** 130.85DA **Outcome:** Improved Mobility

Parent Proposal: 130.85PA Primary Dept: Transportation

**Dependent Proposal:** Proposal Type: Existing

**Previous Proposal:** 130.85DA **Budget Status:** Recommended

Attachments: Primary Staff: Teresa Becker

### Section 2: Executive Summary

This proposal is to provide funding for 2.5 FTEs for the design, management, implementation, and inspection of the Pavement Management Program (PMP). The use of a PMP is required per RCW 46.68.113 and WAC 136-320. The program is responsible to ensure that all City roads are maintained and resurfaced at the most cost-effective time and condition. Adjacent sidewalk wheelchair ramps must also meet accessibility requirements under the Americans with Disabilities Act (ADA). Adjacent curb/sidewalk repairs along with non-standard ramps are replaced with the street overlay. This program is also responsible to assure all city bridges are inspected and maintained as required by the Federal Highway Administration's National Bridge Inspection Standards.

### Section 3: Responsiveness to Request For Results

This proposal provides the staff funding necessary to implement the Capital Investment Program M-1 Overlay Program. Local agencies are mandated through federal and state statutes to have a Pavement Management System (PMS). Chapter 23 of the Code of Federal Regulations Part 500 requires each state must employ a PMS on all highway systems utilizing federal funds. RCW 46.68.113 requires cities to report the condition of their arterial and collector networks each biennium. Counties and cities with populations of 22,500 or greater must model their PMS on the components described in WAC 136-320.

To ensure that all city streets are maintained and repaired at the most cost efficient stage the city utilizes a PMS. The Pavement Engineer is responsible for ensuring all street pavements are physically inspected biennially for signs of deterioration or pavement distress. The inspection is performed by a consultant through the use of a mobile digital collection system as the most accurate and cost effective collection means. The PMS analyzes the condition data and street ratings to create a list of prioritized streets for maintenance. The Pavement Engineer develops the list into a five year candidate plan for roadway repair and resurfacing. The map of candidate streets is shared with other City departments and Franchise Utilities so that they can coordinate their repairs and upgrades to their subsurface systems in advance of planned resurfacing projects.

The Pavement Engineer also collaborates with other divisions and departments to determine if there are other projects that may be implemented through the resurfacing project. Items such as bike lane implementation, channelization upgrades, pedestrian signal modifications and island median upgrades (Urban Boulevards) design elements may be added to the project scope. When these steps are complete the design and engineering process is initiated (see Proposal No. 130.85PA which describes the CIP phase of the program).

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. An important part of this requirement is the obligation whenever roadways are resurfaced to provide compliant curb ramps. The Pavement Engineer must ensure this obligation is met on every overlay site. The 2014 Overlay Program will design and construct more than 200 curb ramps. The project routes are also reviewed for noticeable curb and sidewalk defects that may be repaired as part of the projects. Since the program has a fixed budget, some repair needs may not be fully implemented.

FHWA's National Bridge Inspection Standards mandate a bridge inventory system with the inspection frequency and repairs documenting all structures that carry or cross the travelled way. The inspections of bridges (18) are done under contract with King County every two years to remain in compliance. Using King County's federally qualified bridge inspection teams is more cost effective than outsourcing to consultants. Data collected from the inspection is uploaded to WSDOT's bridge inventory data site and provided to the city in hard copy for compliance. If repairs are required, the rehabilitation work is engineered and processed for construction.

Maintenance of streets is a high priority in the 2013 Resident Survey. Results show residents believing road conditions are "Good" returning to 2011 levels of 42% generally reflecting the on-going status quo program funding levels. The average pavement ratings for arterials are currently right at the target of 78; residential street averages are above target leading to Council direction to focus on arterials streets. It should be noted that some residential streets are currently well below standard even though the average is above target and should be addressed as soon as possible before major re-build costs will be required.

This proposal is mainly responsive to the IMPROVED MOBILITY outcome: Addressing maintenance and preservation of [EXISTING & FUTURE INFRASTRUCTURE] is key: "Maintaining current investments (or infrastructures) is important in optimizing efficiency and value (Purchasing Strategy)." Through a systematic analysis of pavement life cycles, the city can determine the appropriate time to rehabilitate its pavements, utilizing the most cost-effective method necessary to maintain its roads in optimal condition. Also, maintaining wheelchair curb ramps, sidewalks, bike lanes, and bridges are vital for people &getting around& in Bellevue. This proposal ensures sound management of resources and "efficient" business practices.

Secondary outcomes addressed: QUALITY NEIGHBORHOODS: Maintaining city streets in a timely manner provides a safe means of access to residences, parks, schools, businesses and other destinations. "These include sidewalks and bike lanes that provide residents with other modes of travel and result in a healthier environment (Purchasing Strategy)." The ADA/sidewalk maintenance program components "enables people with disabilities to enjoy the benefits of Bellevue's programs, services, and activities by removing barriers that impede their ability to reach their desired destinations and participate in the community (Purchasing Strategy)." This proposal also addresses [INFRASTRUCTURE] as an important consideration under the ECONOMIC GROWTH AND COMPETITIVENESS OUTCOME. The City is responsible "to speed information, goods and services quickly and safely throughout the City (Purchasing Strategy)." Further, "A well maintained transportation system including sidewalks, bike lanes, and bridges is a key component for successful access and circulation within the City's commercial and employment centers (Purchasing Strategy)."

[PREVENTION] under the SAFE COMMUNITY OUTCOME is also addressed under this proposal. Residents feel safer driving when roads are well maintained. "Routine inspections and maintenance of the City's roads, sidewalks, bike lanes, and bridges will result in a safe mobile environment (Purchasing Strategy)."

Transportation partners with local jurisdictions and agencies to share costs on roadway repair and paving. In 2012 staff worked with Redmond on the pavement overlay of 148th Ave NE saving both cities money by providing a single contract to conduct work on our shared roadway. Internally, the Program includes the restoration requirements under the Utilities Department pipeline repair and remediation work. Traffic Engineering staff provides design input to install new bike lanes on Overlay sites to meet the objectives of the Ped-Bike Plan at a lower cost than with individual bike lane projects. Work is also coordinated with Signals staff to install new traffic loops within the overlay areas that support the new SCATS traffic signal control system.

The Overlay Program ultimately reduces pavement maintenance costs by addressing pavement wear prior to major roadway maintenance or roadway re-construction has to occur. Left unaddressed, the roadway

conditions will deteriorate to the point where it would be financially impossible to restore roadways to good condition ultimately requiring more and more budget dollars for roadway maintenance over time.

Scalability: Further reductions will impact design, project management, and/or inspection of work performed. Designs are prepared in-house (0.5 FTE) reducing costs by approximately \$120,000/yr compared to outsourcing. Program management staff (1.0 FTE) manage the PMS database, reporting requirements contracting for pavement condition assessment, pavement repair/overlay management and bridge inspection. One inspector (1.0) FTE inspects all work programmed under this proposal. Outsourcing inspections would adversely affect the interdepartmental coordination with Utilities, media releases, traffic advisories and police traffic control scheduling. It would also increase costs by approximately \$110,000 for inspection labor.

# Section 4: Performance Measures and Targets

<u>Code</u>	Performance Measure	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Actual</u>	<u>2013</u> <u>Actual</u>	<u>2014</u> <u>Target</u>	<u>2015</u> <u>Target</u>	2016 Target
130.0086	Average pavement rating across the arterial roadway system	72	74	76	78	78	78	78
130.0087	Average pavement rating across the residential roadway system	84	82	87	87	72	72	72

#### Section 5: Requested Funding

5A: Are any new costs other than inflation included in this proposal?

NA

5B: Are one-time expenditures included in this proposal?

NA

5C: Are dedicated revenues included in this proposal?

Partially supported by CIP funding.

5D: Are changes to the existing service levels included in this proposal?

NA

FTE/LTE	<u>2015</u>	<u>2016</u>
FTE	2.50	2.50
LTE	0.00	0.00
Total Count	2.50	2.50

Operating	<u>2015</u>	<u>2016</u>
Expenditures	25,238	25,238
Personnel	313,087	323,934
Supporting Revenue	349,352	361,230
Rev-Exp Balance	11,027	12,058